# PM 6665 Timer/counter

# PM 6669 Frequency counter

## Service Manual

9499 465 00711
87 06 01 First edition

I&E

Industrial & Electro-acoustic Systems Division

PHILIPS

**Industrial &
Electro-acoustic Systems**

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## Important

As the instrument is an electrical apparatus, it may be operated only by trained personnel. Maintenance and repairs may also be carried out only by qualified personnel.

## Please note

In correspondence concerning this instrument, please quote the type number and serial number as given on the type plate.

⚠

The counter is marked with this symbol when it is necessary for the user to refer to the manual.

# Contents


## 1. Safety instructions . . . . . 2

## 2. Drawings and diagrams

PM 6665
- Basic board,
  - Component layout. . . . . 4
  - Input amplifier diagram. . . . . 5
  - Power supply and Logic unit . . . . . 7
- Front panel
  - Component layout. . . . . 8
  - Circuit diagram . . . . . 9

PM 6669
- Basic board,
  - Component layout. . . . . 10
  - Input amplifier diagram. . . . . 11
  - Logic unit. . . . . 13
  - Power supply . . . . . 15
- Front panel
  - Component layout. . . . . 16
  - Circuit diagram . . . . . 17

Options
- /.1. oscillator (uncompensated-crystal)
  - Component layout. . . . . 18
  - Circuit diagram . . . . . 19
- PM 9604, GPIB interface
  - Component layout. . . . . 20
  - Circuit diagram . . . . . 21
- PM 9605, Battery unit
  - Component layout. . . . . 22
  - Circuit diagram . . . . . 23
- PM 9608, 1.1 GHz HF input
  - Component layout. . . . . 24
  - Circuit diagram . . . . . 25

## 3. Spare parts list

Mechanical parts . . . . . 28
PM 6665 Basic board. . . . . 29
Front panel . . . . . 32
PM 6669 Basic board. . . . . 33
Front panel . . . . . 35

Options
- /.1. oscillator (uncompensated-crystal) . . . . . 36
- /.3. oscillator (MTCXO) . . . . . 36
- PM 9604 GPIB-interface. . . . . 37
- PM 9605 Battery unit . . . . . No spare parts available yet
- PM 9606 Rack-mount kit . . . . . No spare parts
- PM 9607 . . . . . 36
- PM 9608 1.1 GHz HF-input . . . . . 39

# 1. Safety instructions

## GENERAL INFORMATION

WARNING: These servicing instructions are for use by qualified personnel only. To reduce the risk of electrical shock, do not perform any servicing other than that specified in the Operating Manual unless you are fully qualified to do so.

This counter has been designed and tested in accordance with IEC Publication 348, Safety Requirements For Electronic Measuring Apparatus For Class 1 instruments, and has been supplied in a safe condition. This manual contains information and warnings that should be followed by the user and service technician to ensure safe operation and repair in order to keep the counter in a safe condition.

WARNING: The opening of covers or removal of parts, except those to which access can be gained by hand, is likely to expose live parts and accessible terminals which can be dangerous to life.

The counter must be disconnected from all voltage sources before it is opened.

Remember that capacitors inside the counter retain their charge even if the counter has been disconnected from all voltage sources.

## GROUNDING

The counter is connected to ground via a sealed three-core power cable, which must be plugged into a socket outlet with a protective ground contact. No other method of grounding is permitted for this counter. When the counter is brought from a cold to a warm environment, condensation may cause a hazardous condition. Therefore, ensure that the grounding requirements are strictly met.

Power extension cables must always have a protective ground conductor.

WARNING: Any interruption of the protective ground conductor inside or outside the counter, or disconnection of the protective ground terminal, is likely to make the counter dangerous. DO NOT intentionally disrupt the protective grounding.

## LINE VOLTAGE SETTING

Before connecting the counter to the line, ensure that it is set to the local line voltage. On delivery the counter is set to either 115 V or 220 V, as indicated on the line voltage selector on the rear panel. If the voltage setting is incorrect, set the line voltage selector in accordance with the local voltage before connecting the counter to the line.

## SPARE PARTS

Components that are important for the safety ofthe instrument may only be renewed by components obtained from your local Philips organisation.

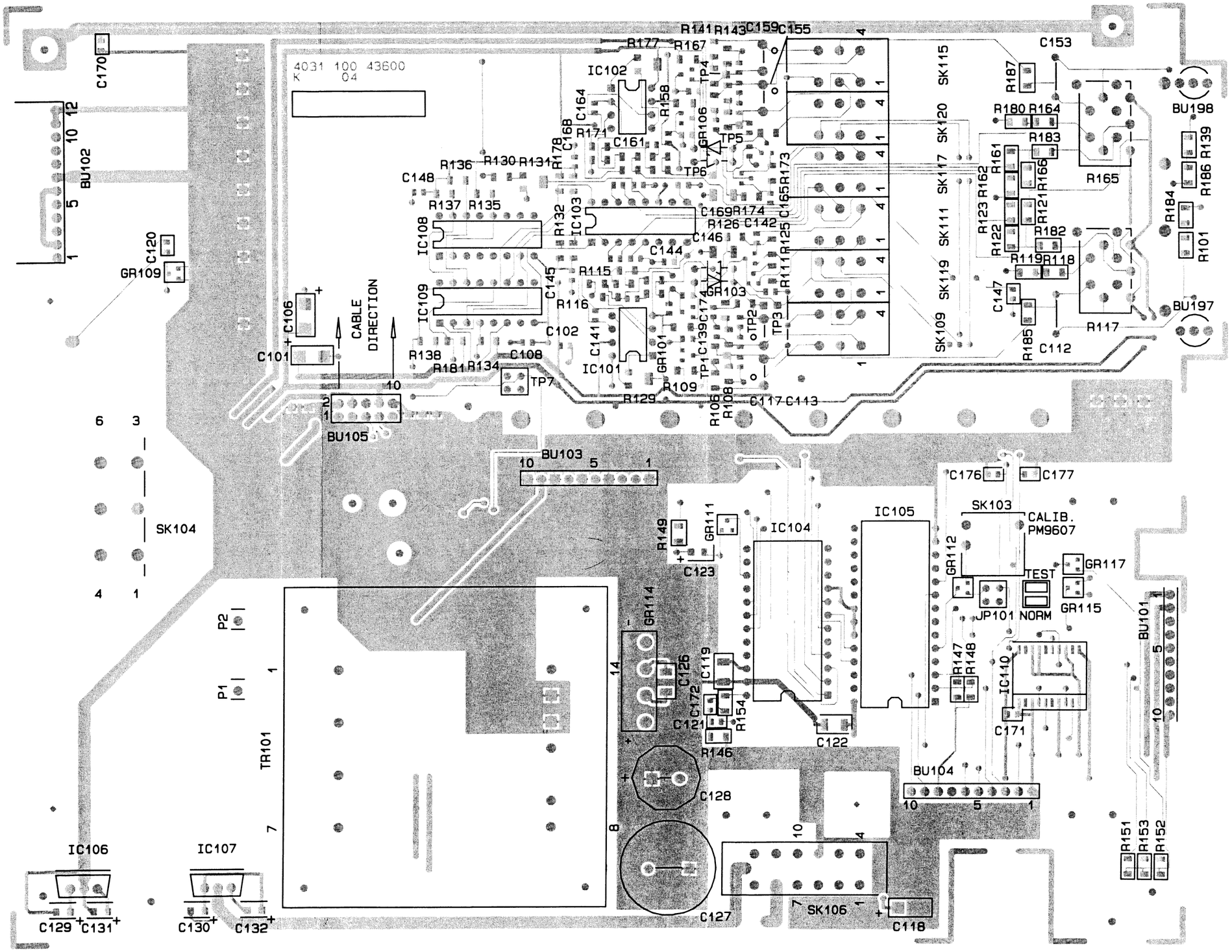
## FUSES

The counter is protected by one fuse inside the transformer. This fuse will blow if the transformer is dangerously overheated. The fuse cannot be replaced separately.

Always replace the complete transformer to ensure that the counter remains safe!

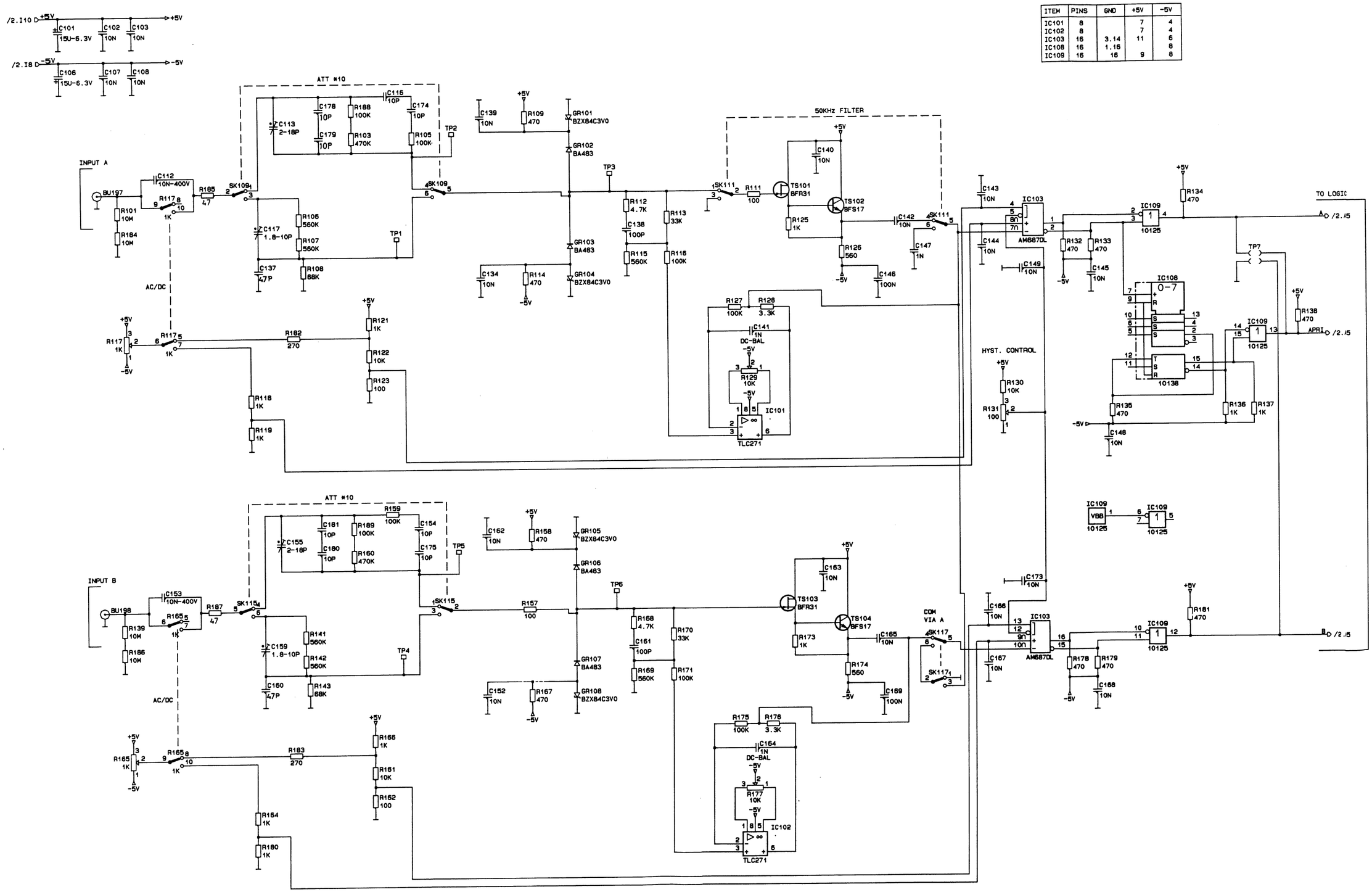
## 2. Drawings and diagrams

# PM 6665 Basic board



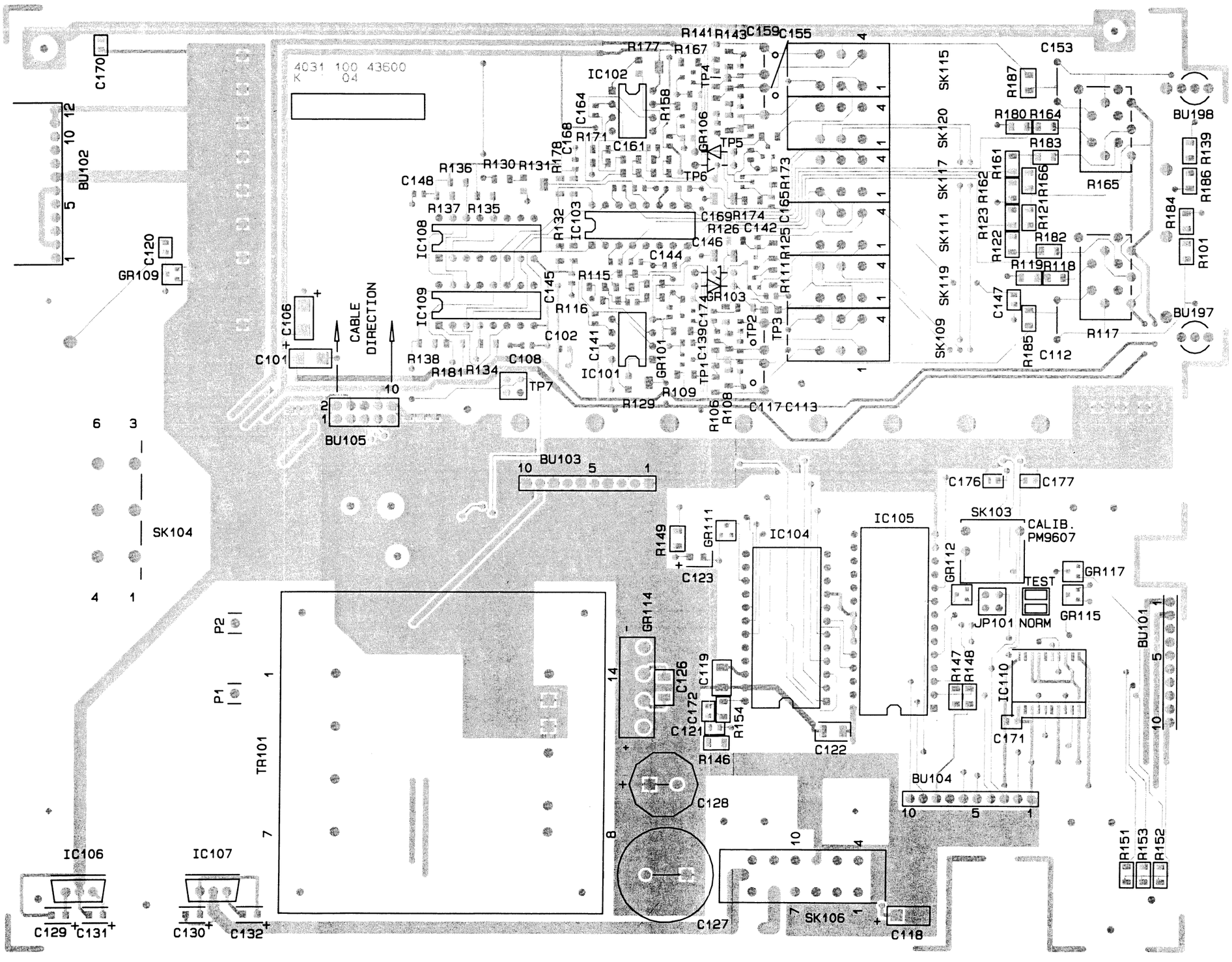
# PM 6665 Basic board, input amplifier

| ITEM | PINS | GND | +5V | -5V |
|---|---|---|---|---|
| IC101 | 8 | | 7 | 4 |
| IC102 | 8 | | 7 | 4 |
| IC103 | 16 | 3.14 | 11 | 6 |
| IC108 | 16 | 1.16 | | 8 |
| IC109 | 16 | 16 | 9 | 8 |

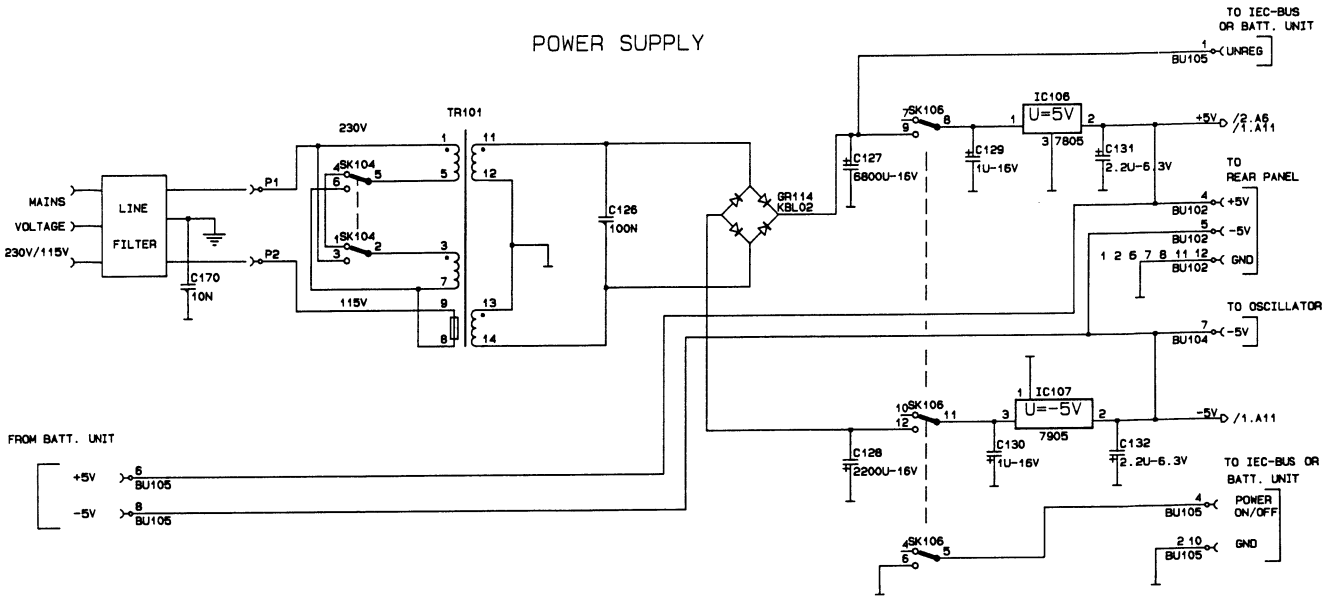


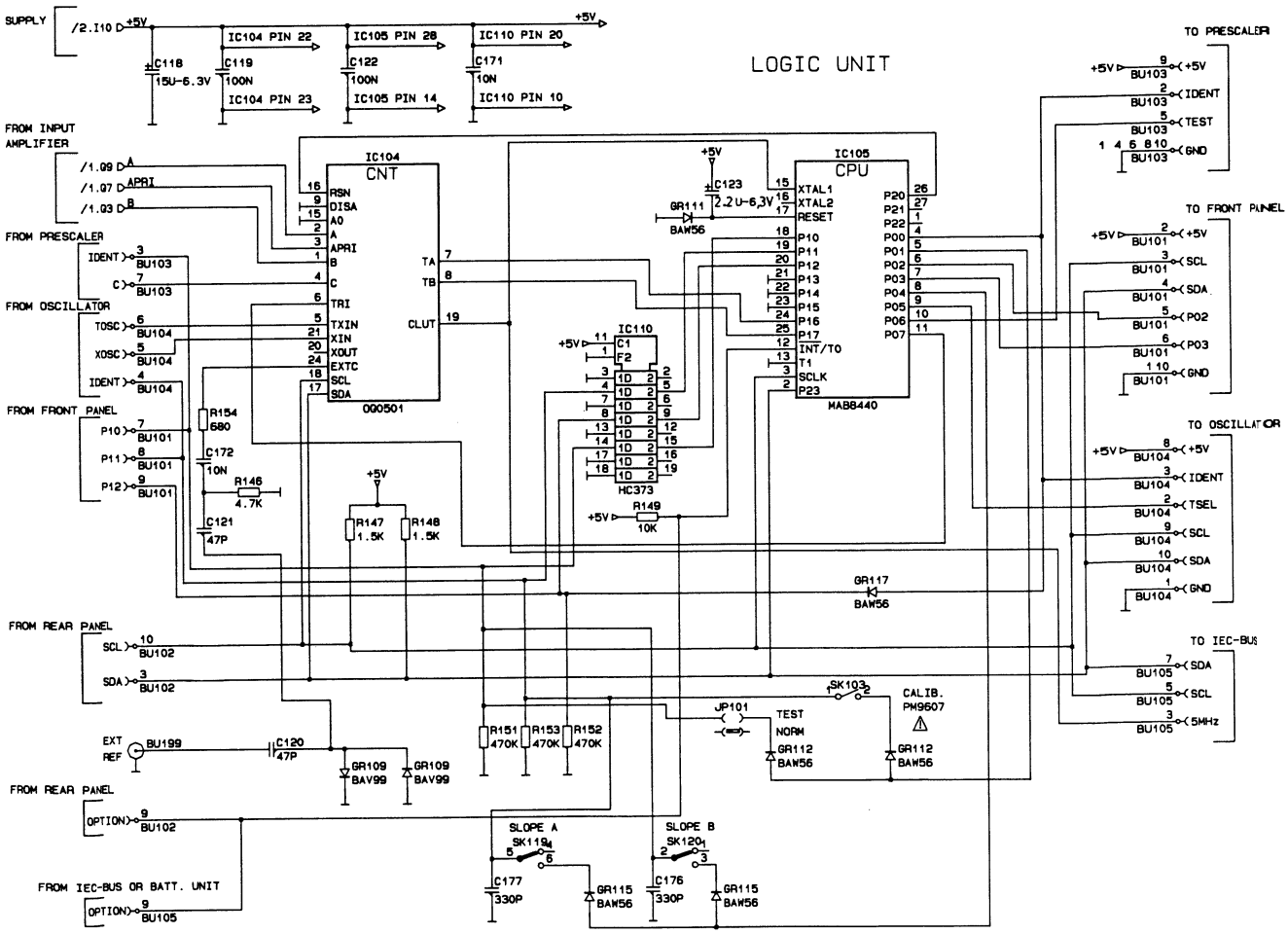
6

# PM 6665 Basic board

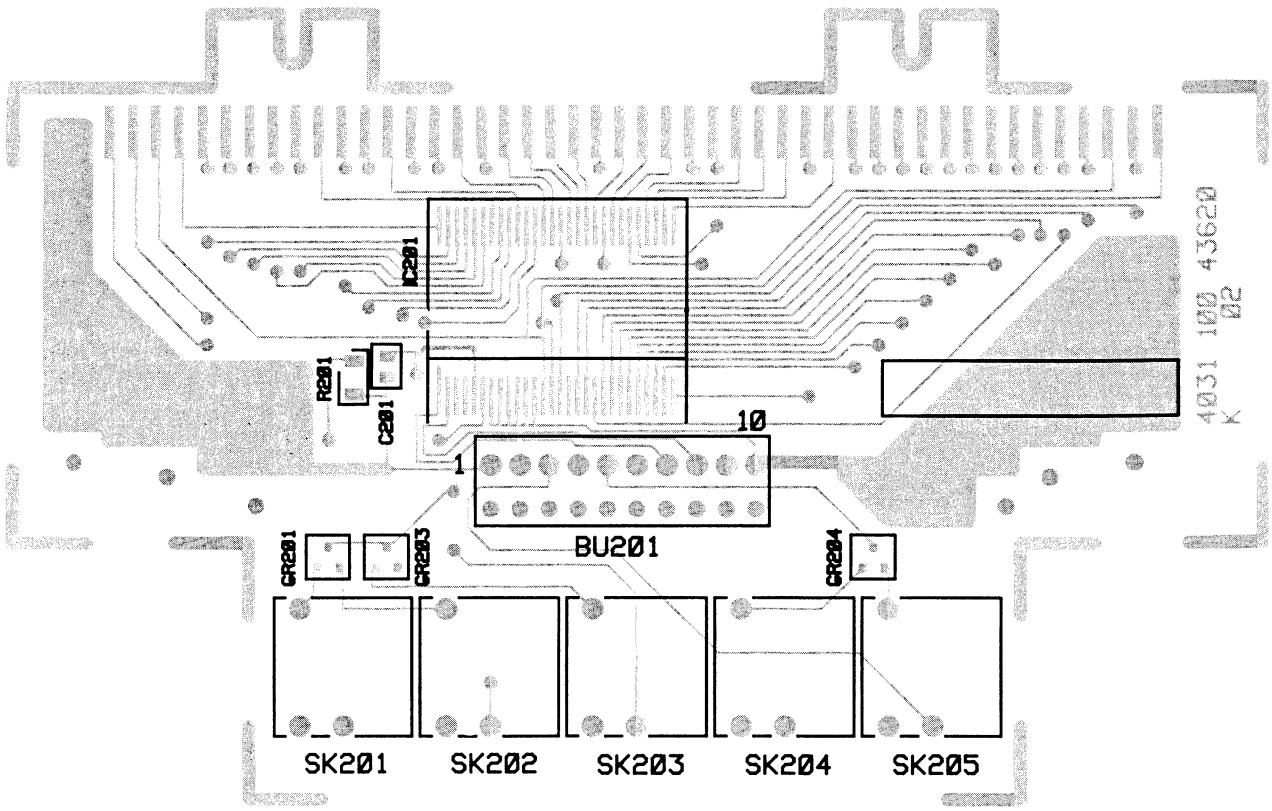


# PM 6665 Basic board, power supply and logic unit

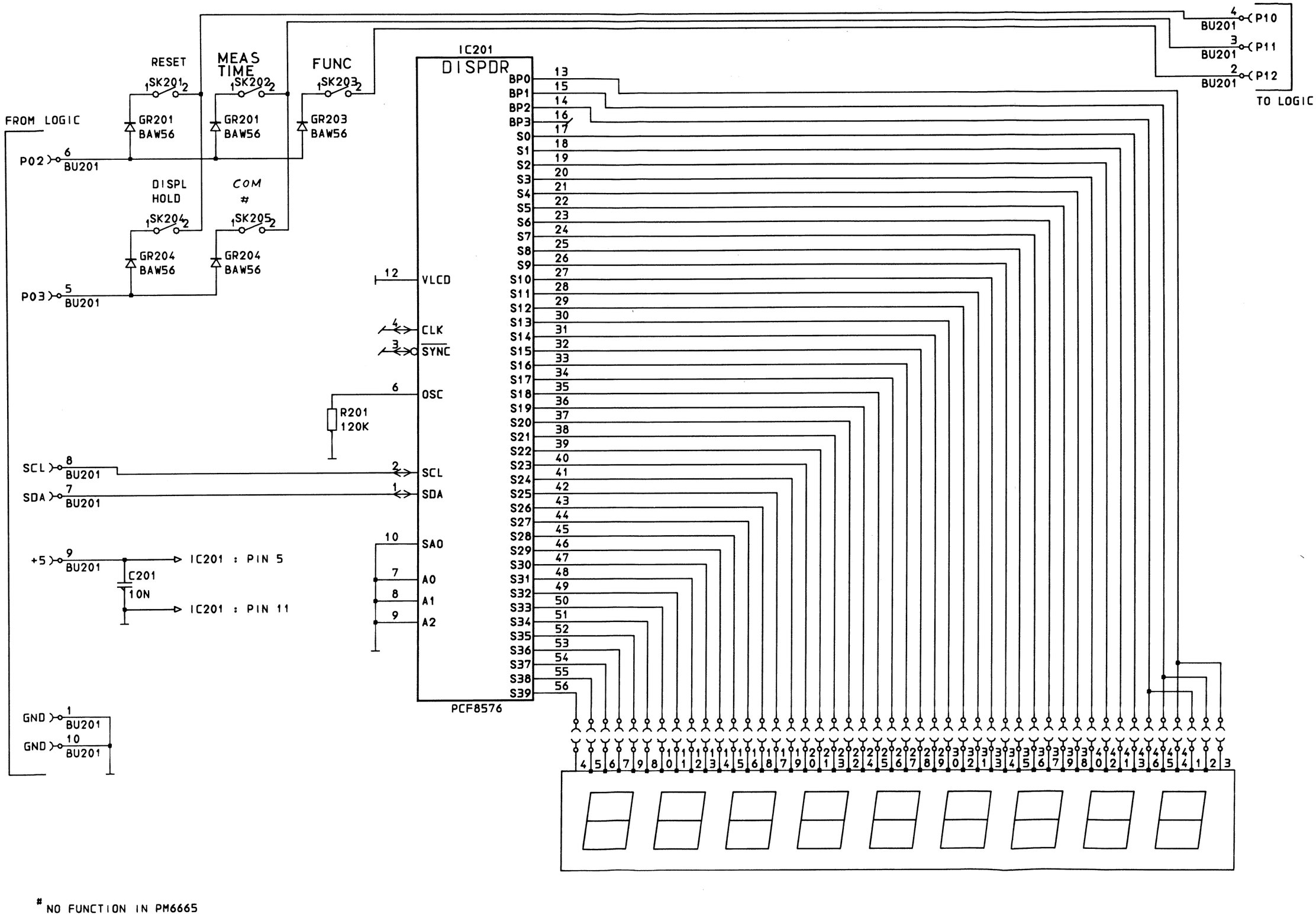


# PM 6665 Front panel



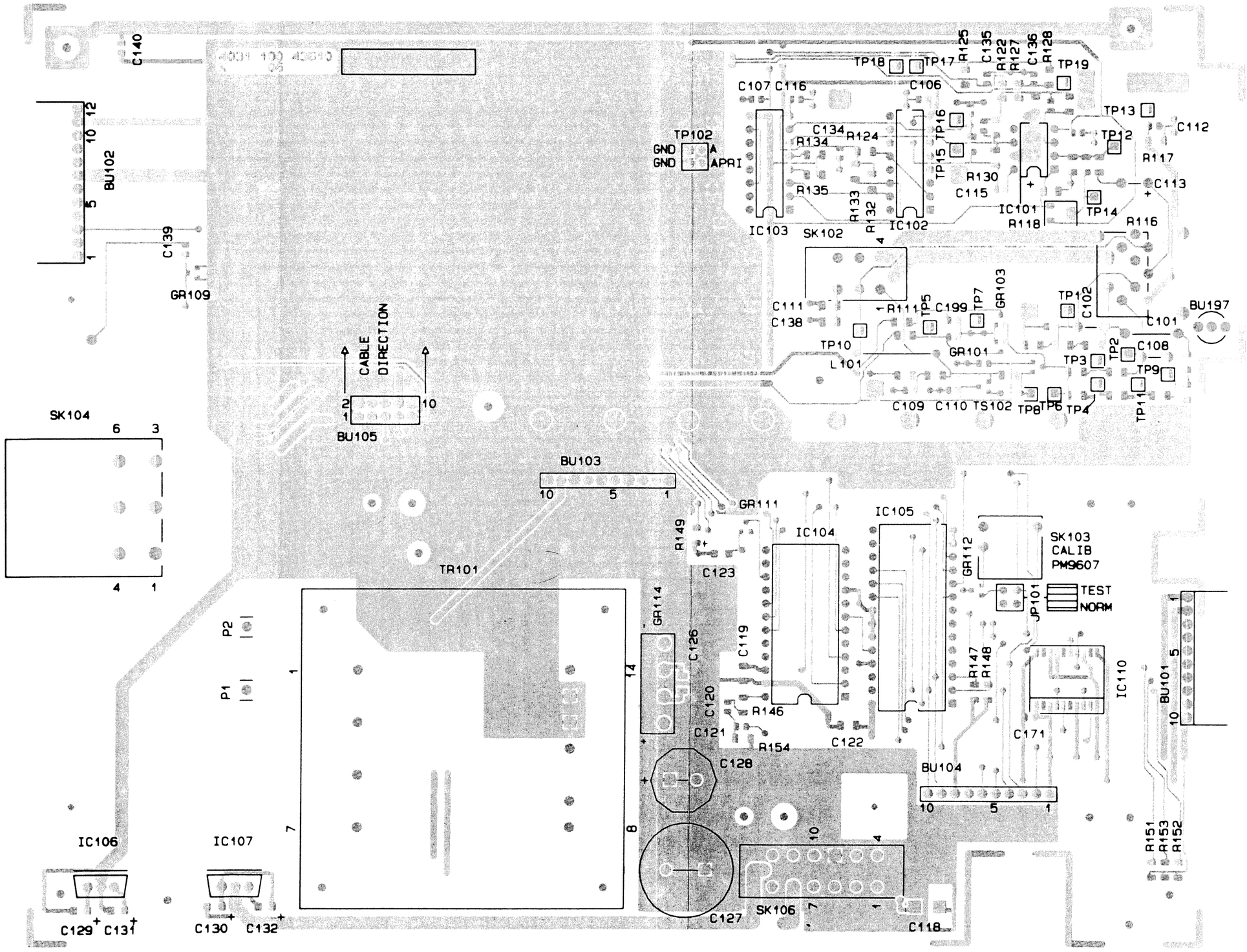
# PM 6665 Front panel



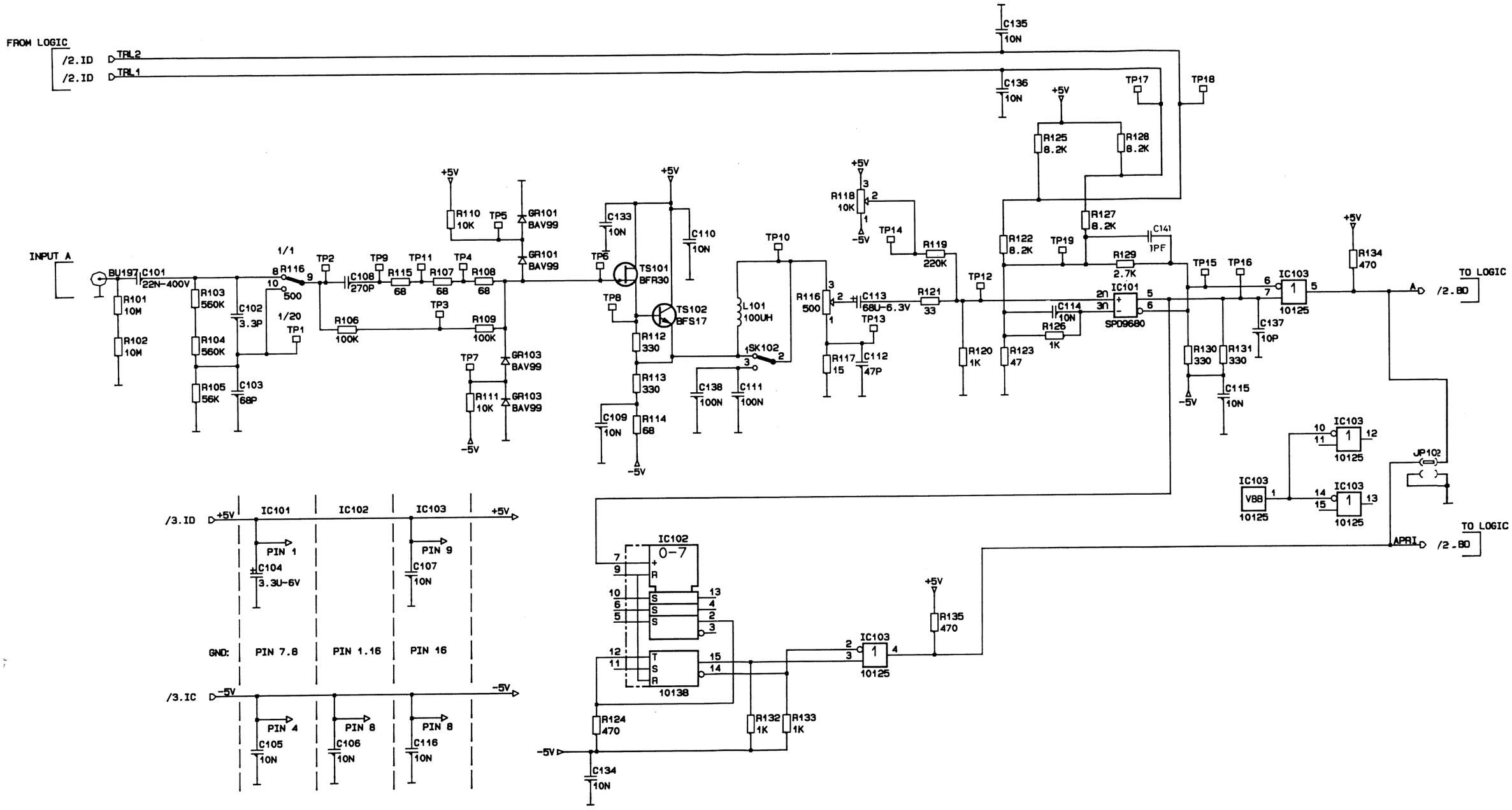

# NO FUNCTION IN PM6665

10

## PM 6669 Basic board

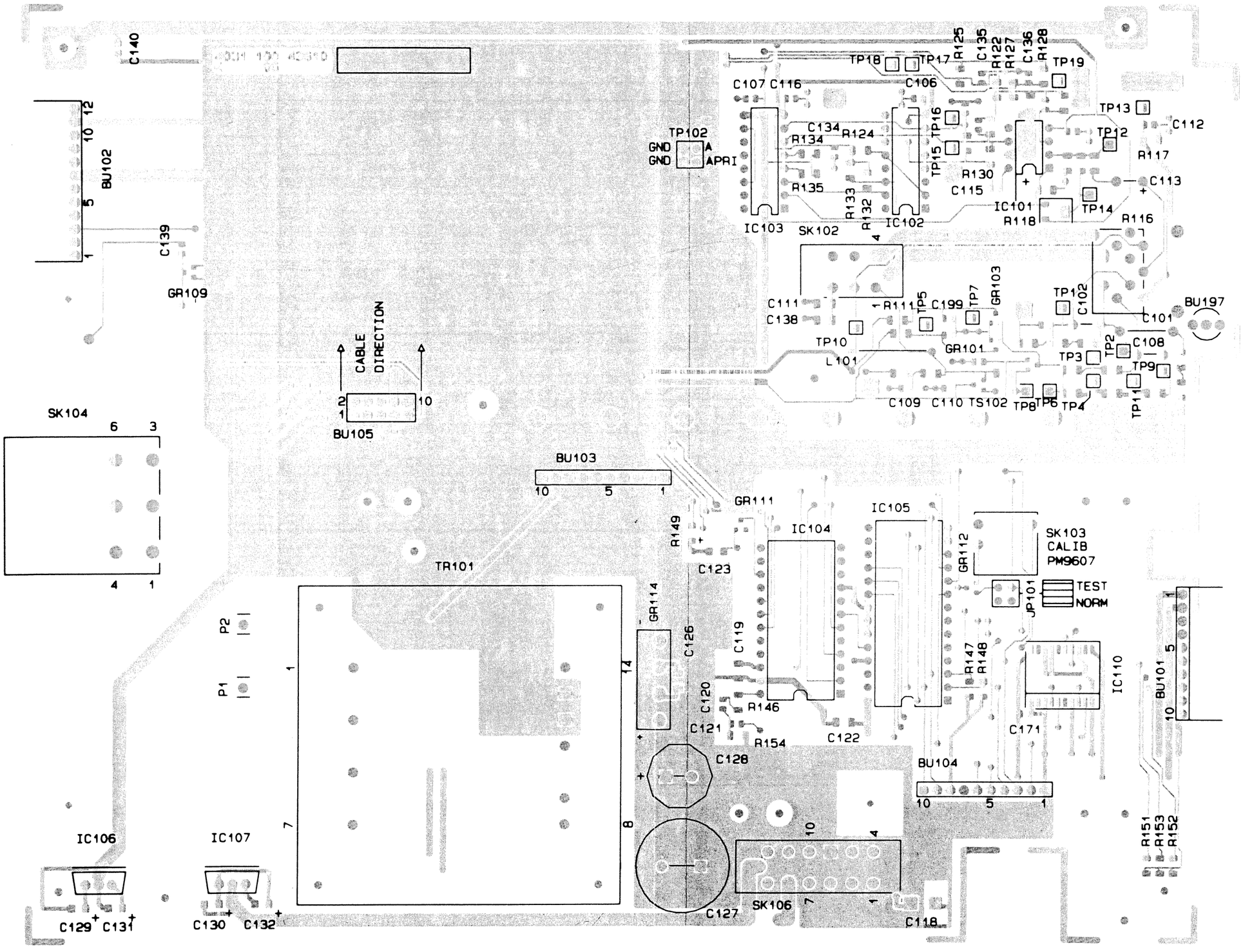


# PM 6669 Basic board, input amplifier

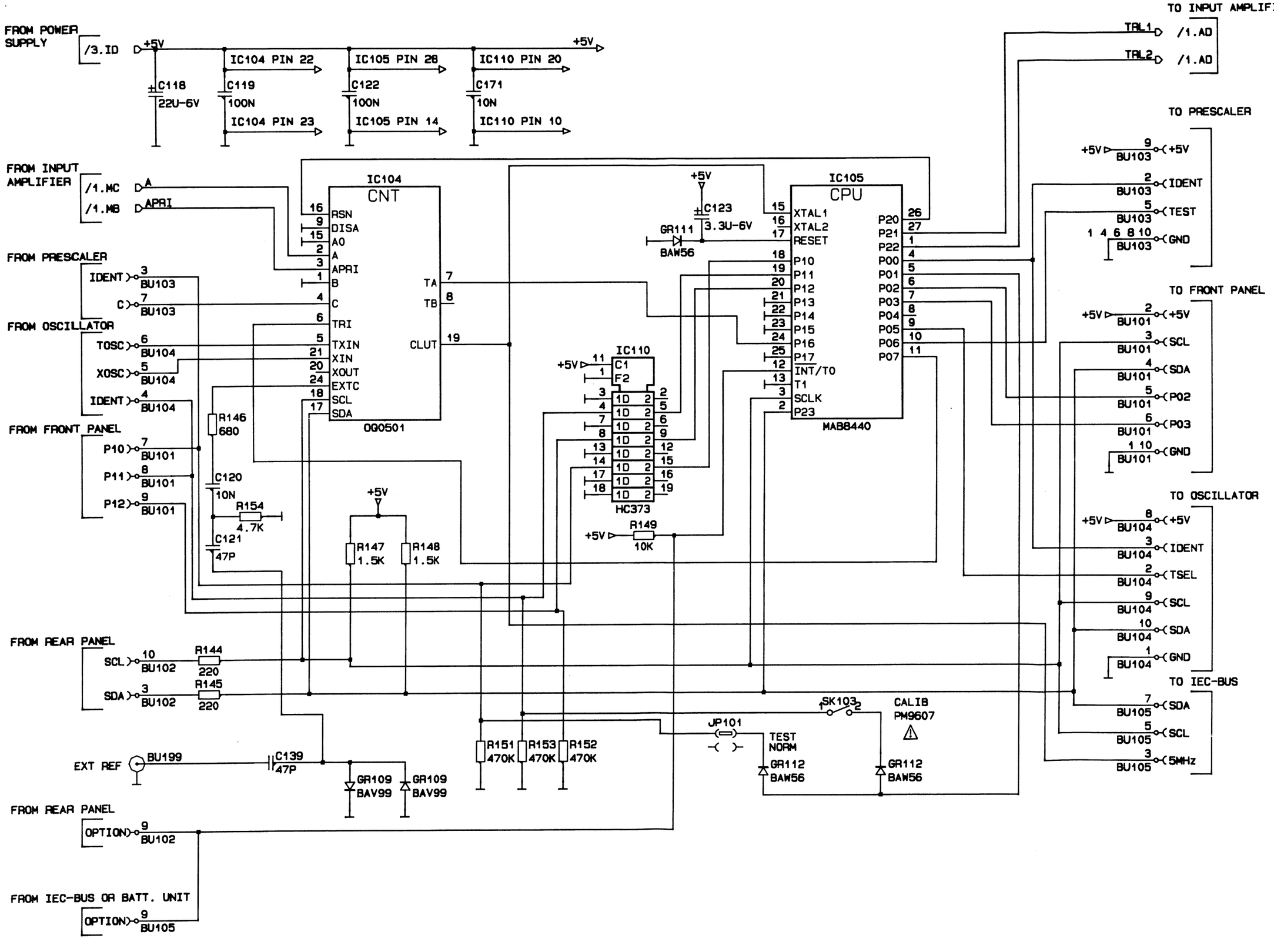


12

## PM 6669 Basic board

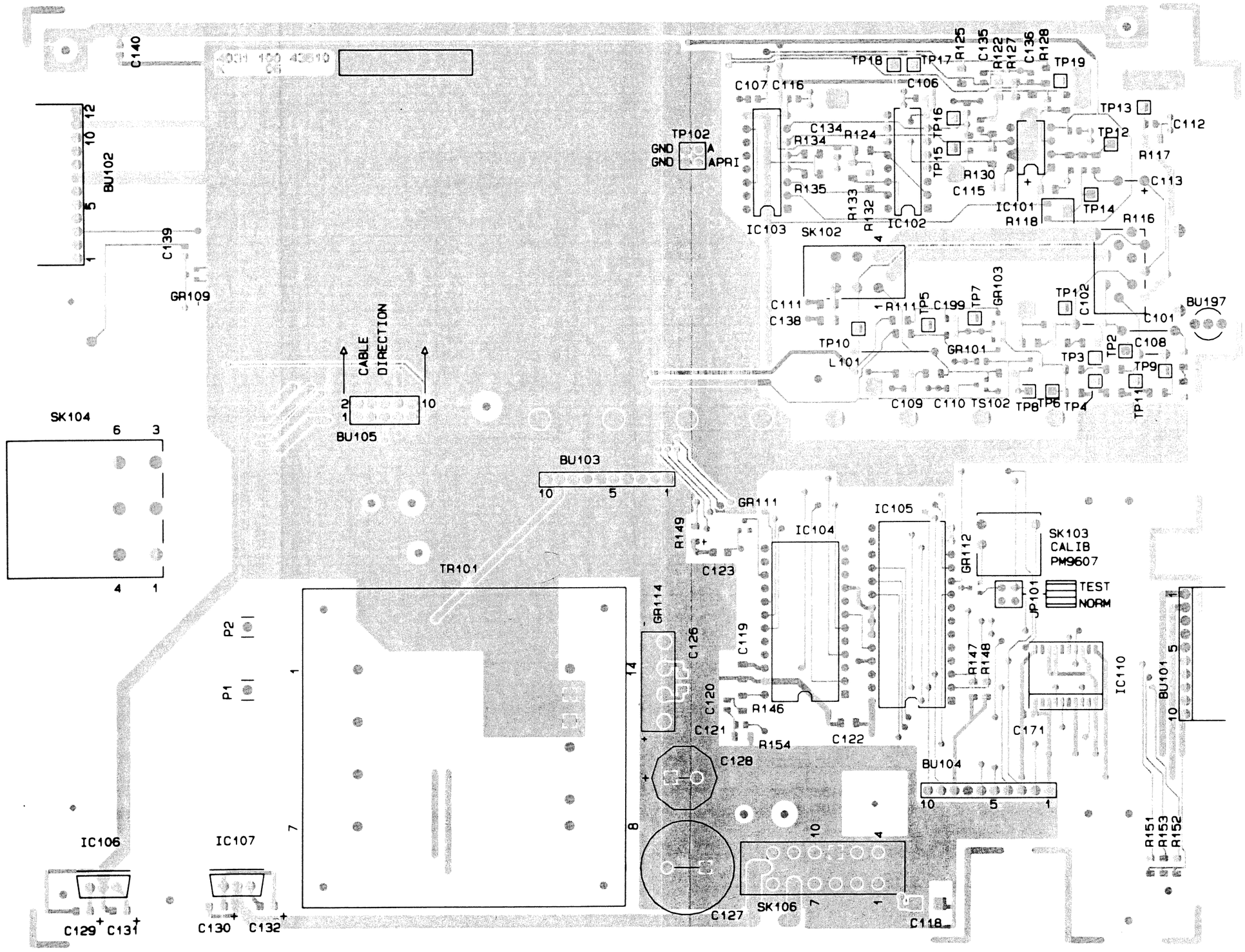


# PM 6669 Basic board, logic unit

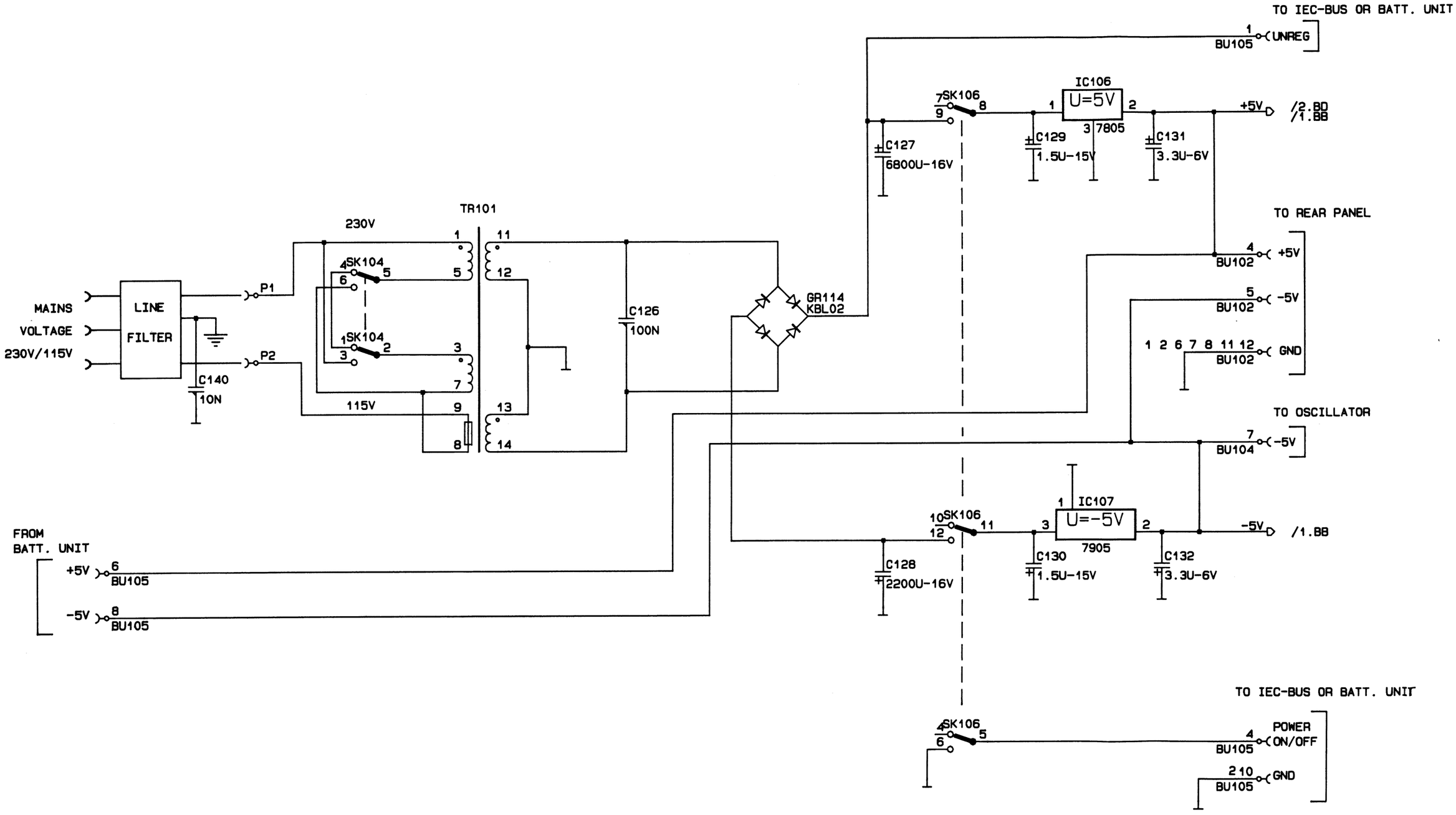


14

## PM 6669 Basic board

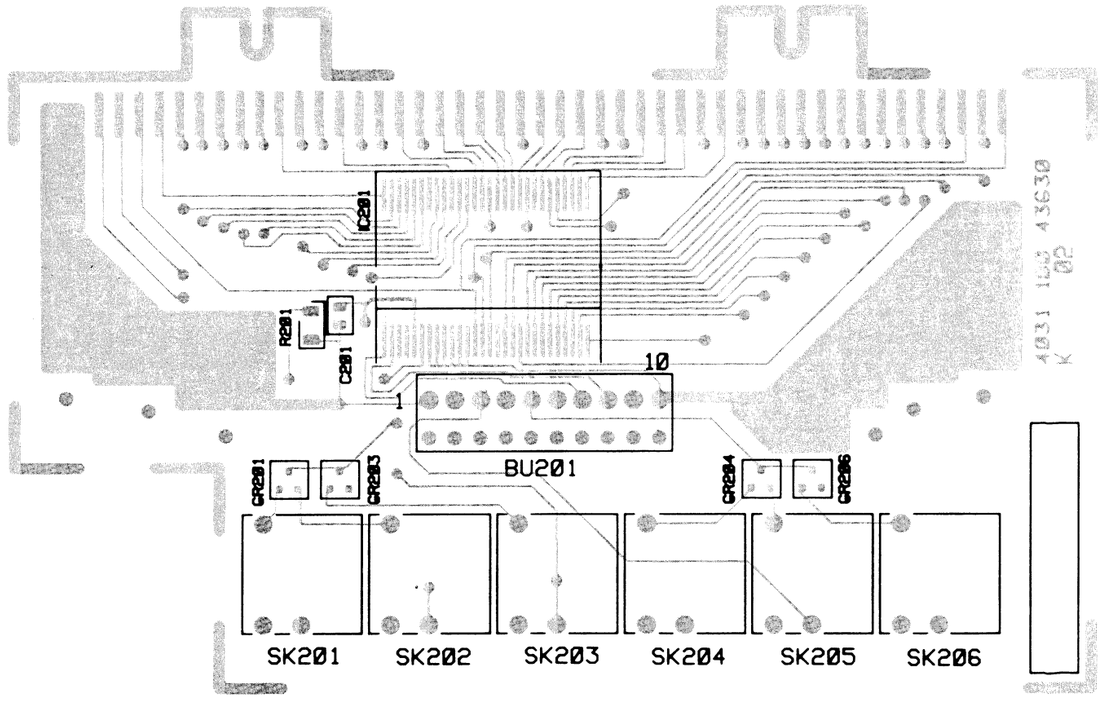


# PM 6669 Basic board, power supply

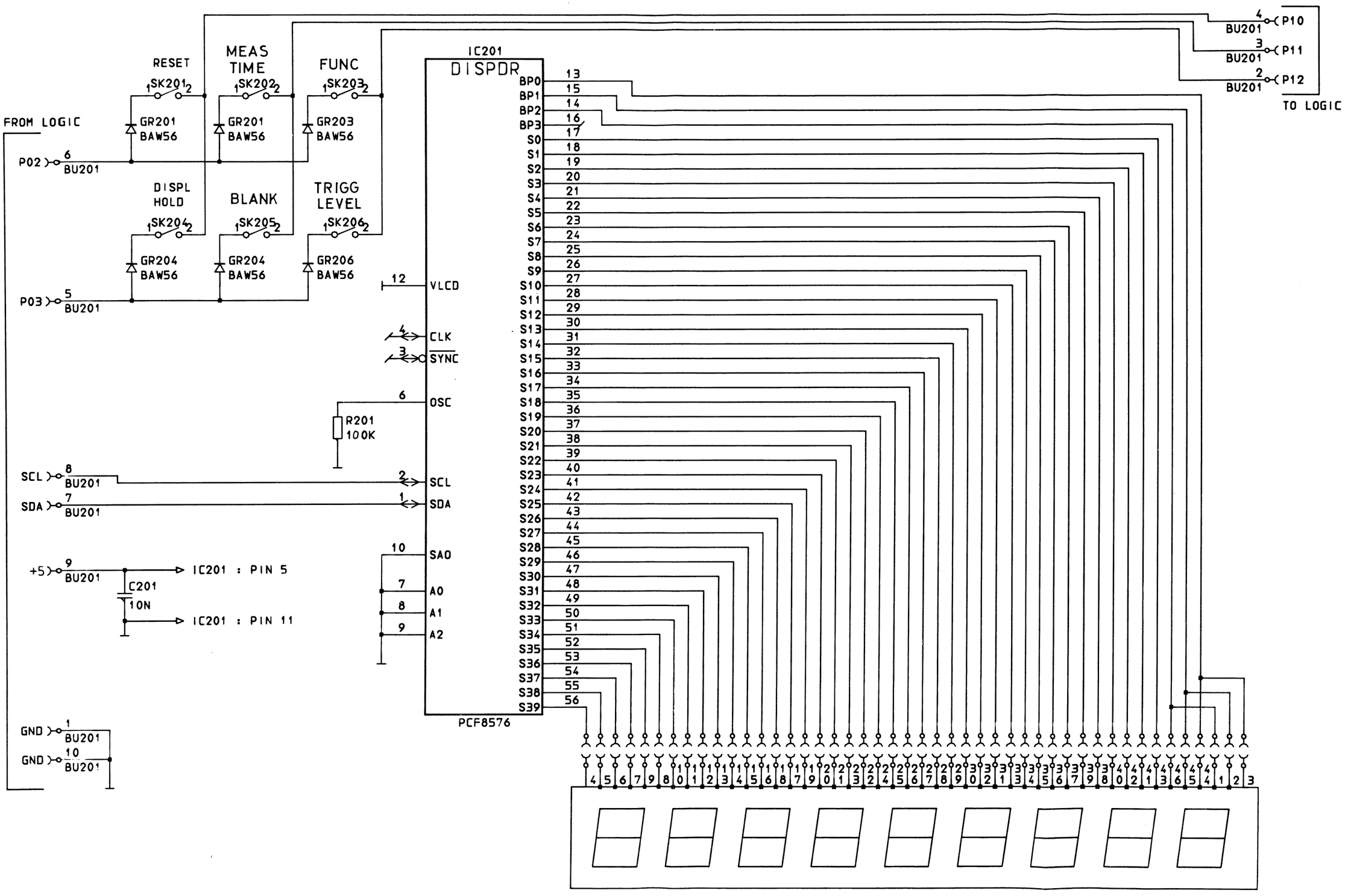


16

# PM 6669 Front panel

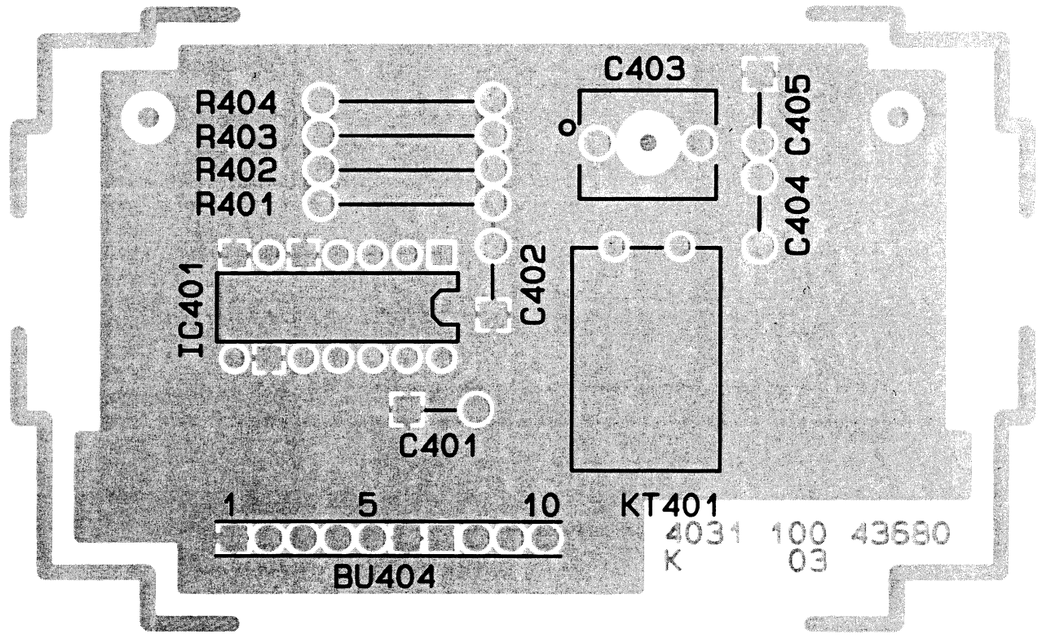


# PM 6669 Front panel

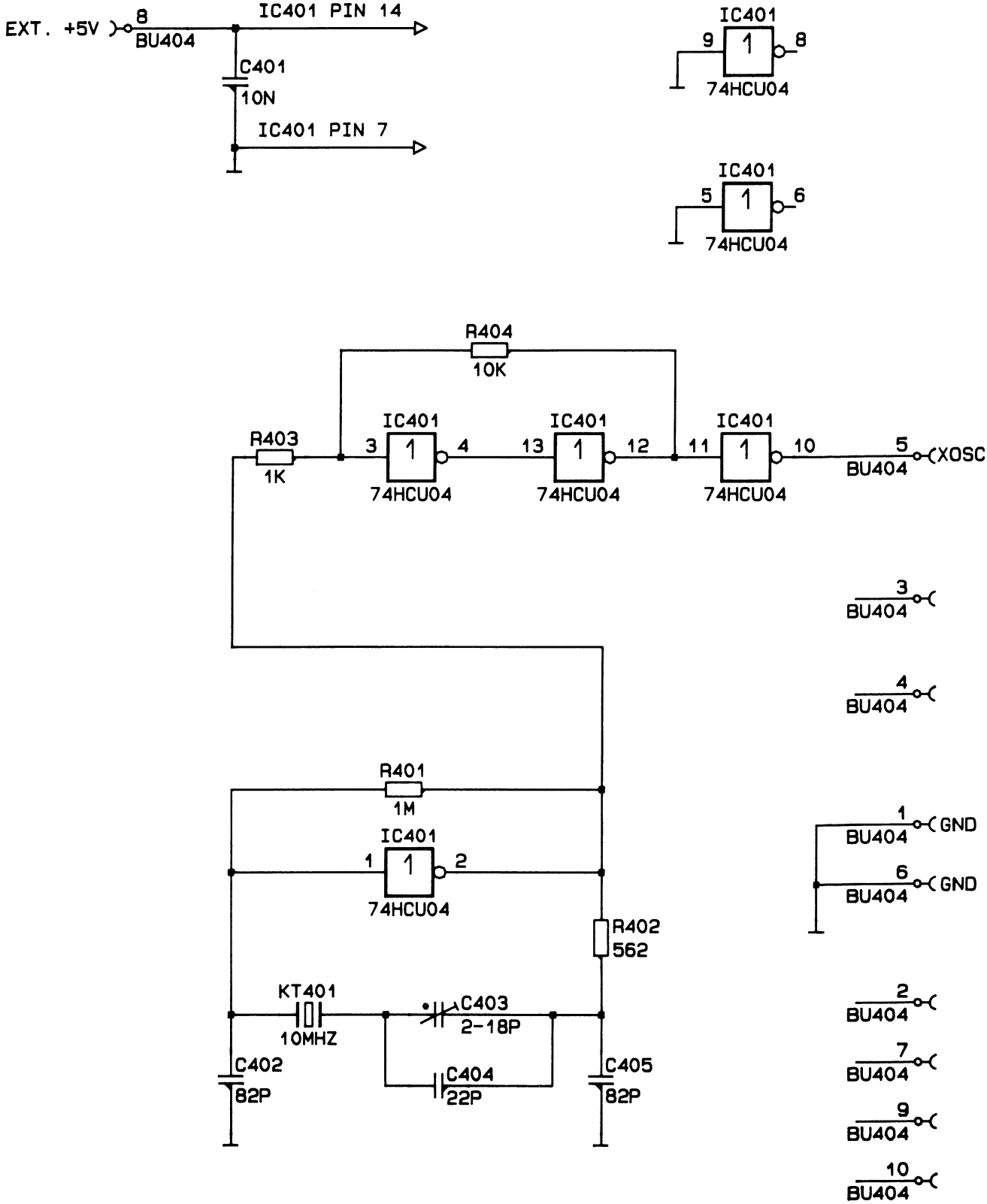


18

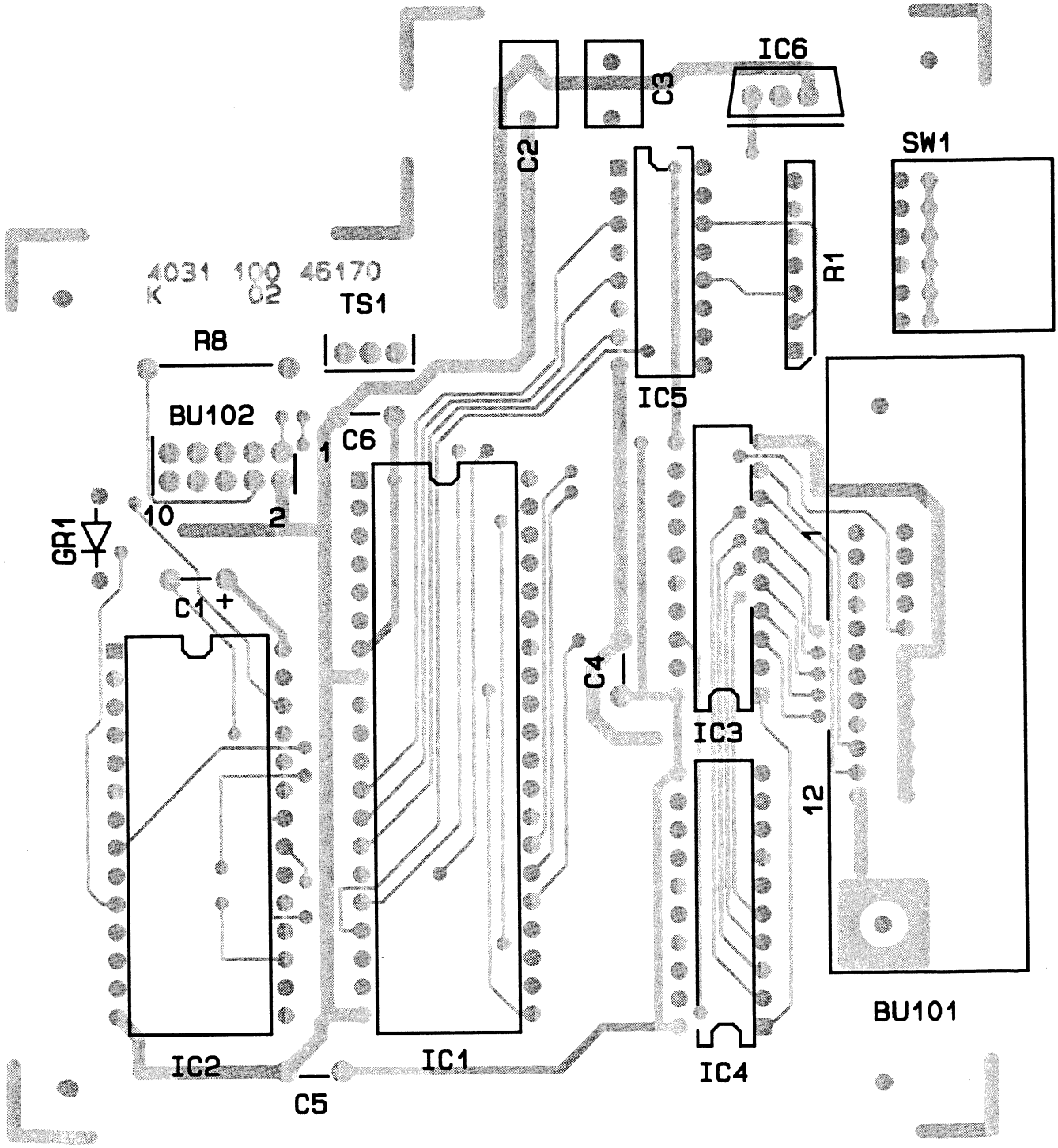
**/.1. oscillator (uncompensated-crystal)**



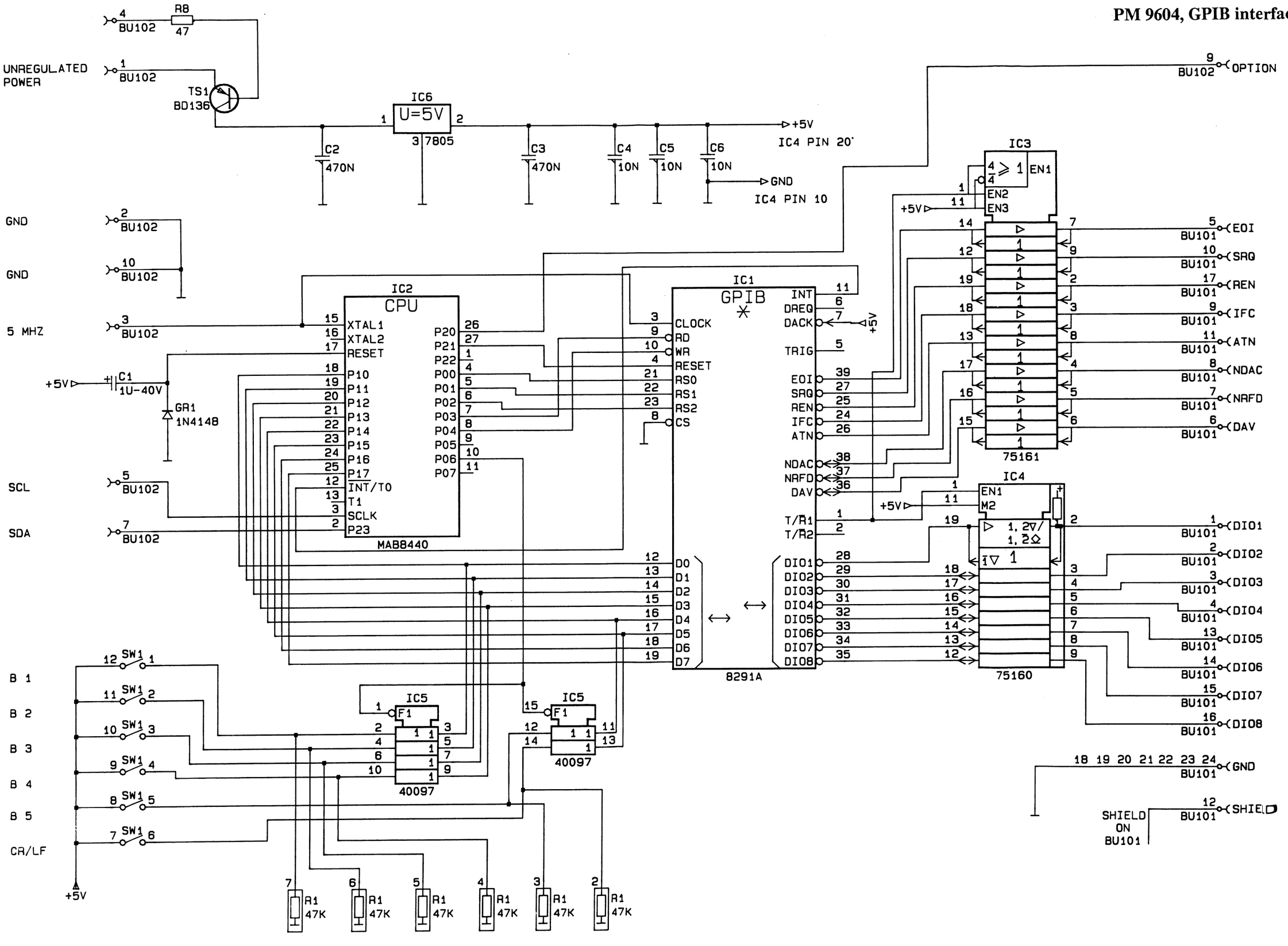
## /.1. oscillator (uncompensated-crystal)



# PM 9604, GPIB interface

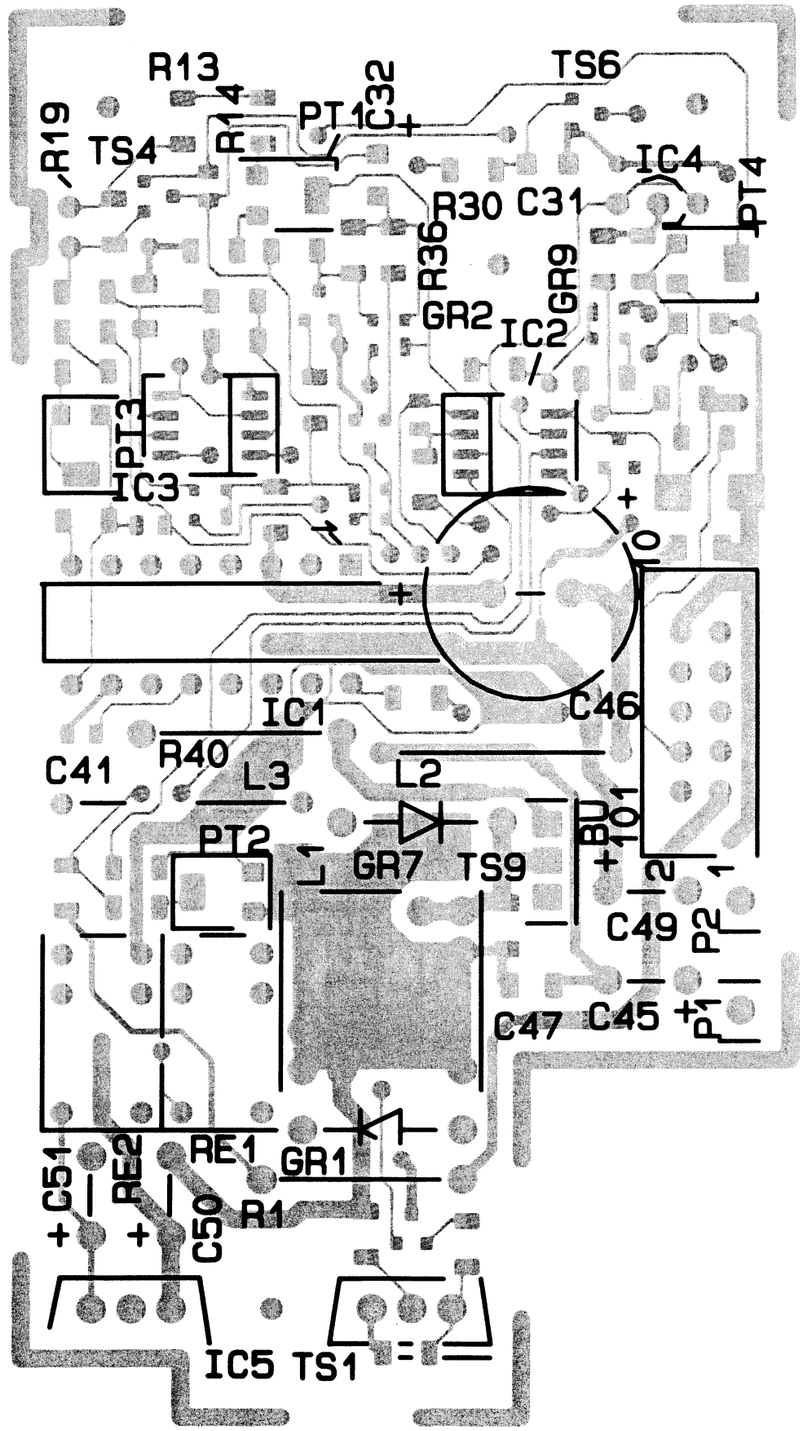


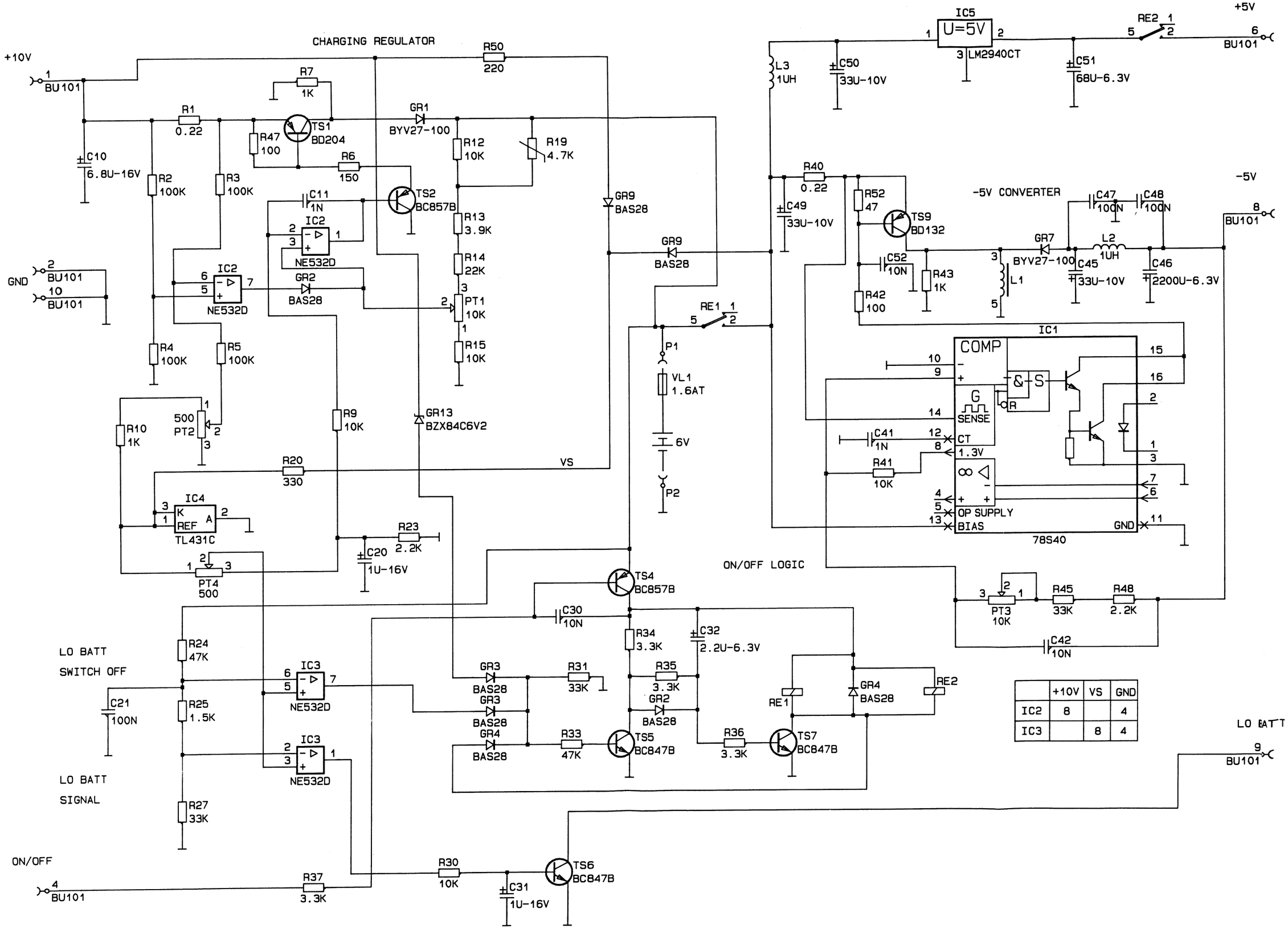
# PM 9604, GPIB interface



22

## PM 9605, Battery unit

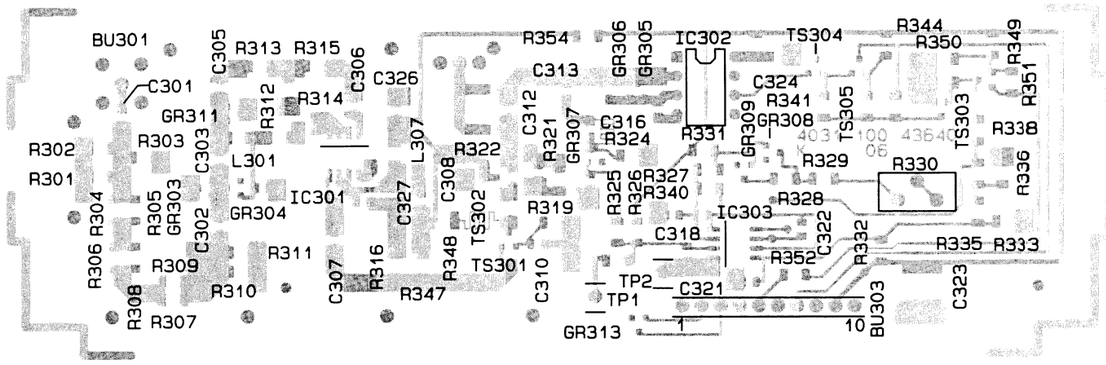





| | +10V | VS | GND |
|---|---|---|---|
| IC2 | 8 | | 4 |
| IC3 | | 8 | 4 |

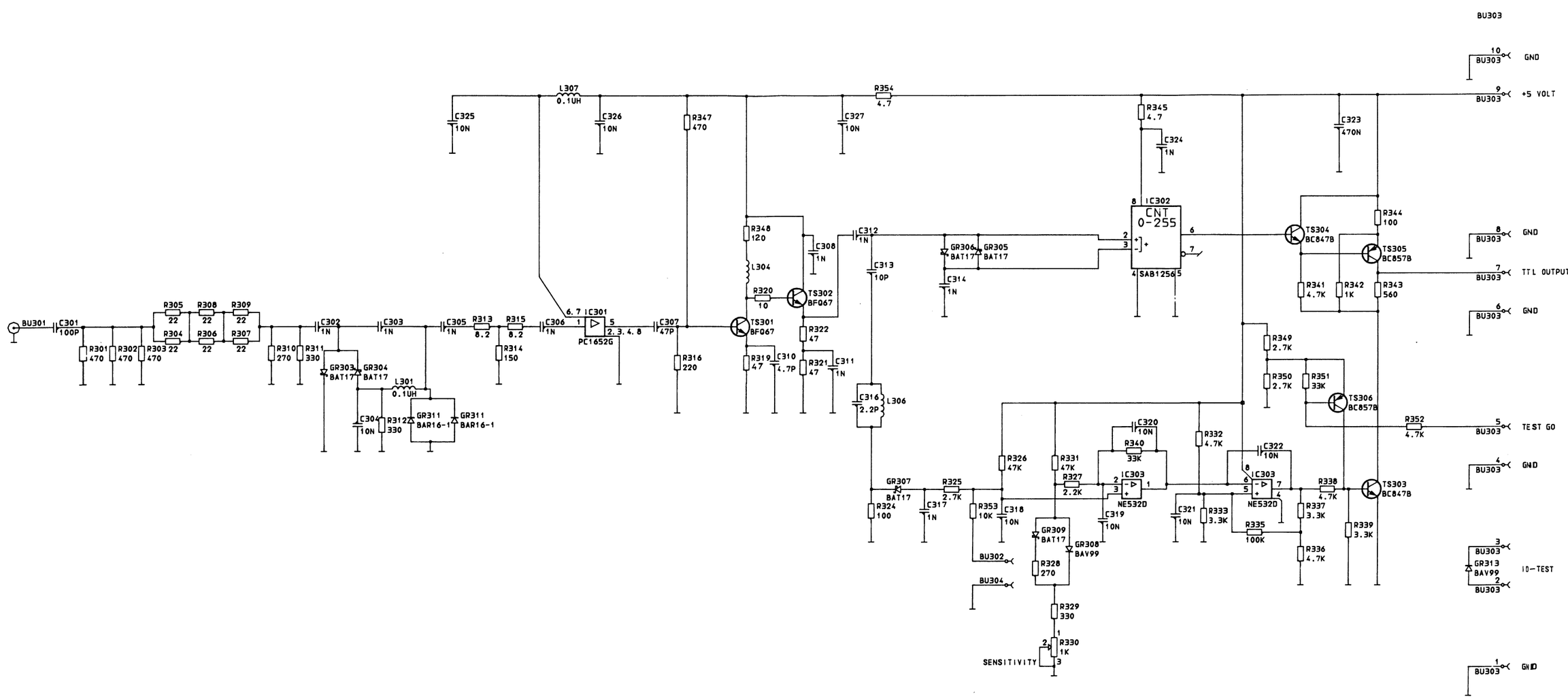
24

# PM 9608, 1.1 GHz HF input



# PM 9608, 1.1 GHz HF input

L304 AND L306 ARE PARTS OF THE PCB



26

# 3. Spare parts list

PM6665,-69 DATE: 87-05-12

| SERVICECODE | DESCRIPTION | | | ARTICLE SPECIFICATION |
|---|---|---|---|---|
| MECHANICAL PARTS | | | | |
| 4822 526 10097 | FXF TUBE | 0.00 | | 3B 4.3X2 L=7.2 |
| 5322 121 42352 | MAINS FILTER | 1.00 | A | FN326-1/07 |
| 5322 130 90413 | DISPLAY | 0.00 | | PM6665-69 |
| 5322 267 10004 | CONNECTOR | 0.00 | | KC-79-35 |
| 5322 267 70208 | ZEBRA STRIP | 0.00 | | S0.25P100.0L6.0H2.8W |
| 5322 276 60257 | PUSH SWITCH | 6.00 | CELL | PM6665 |
| 5322 321 22314 | CABLE ASSY | 0.00 | | PM6665-69 |
| 5322 401 11102 | TILTING SUPPOR | 0.00 | | PM6665-69 |
| 5322 414 20034 | PUSH BUTTON | 0.00 | SCHAD | 6X10 L-BR/GN 30304 |
| 5322 414 30044 | KNOB | 10.00 | MM | BROWN SP=4 NO LINE |
| 5322 414 70016 | COVER | 8.00 | MM | BROWN WH.LINE |
| 5322 450 60633 | WINDOW | 0.00 | | FOR LCD 29X101.5 |
| 5322 462 41115 | REAR FOOT | 0.00 | | PM6665-69 |
| 5322 462 41116 | BOTTOM FOOT | 0.00 | | PM6665-69 |
| 5322 462 41117 | RUBBER FOOT | 0.00 | | PM6665-69 18X10X8 |
| 5322 498 10263 | EXTENSION BAR | 0.00 | | PM6665-69 |
| 5322 500 10385 | SCREW | 0.00 | | MRX 4X14 ST FZ |

PM6665 DATE: 87-05-12

BASIC BOARD, U1

| SERVICECODE | DESCRIPTION | | | ARTICLE SPECIFICATION | POS-NR |
|---|---|---|---|---|---|
| 5322 265 40379 | CONNECTOR | 5.00 | POL | 22-05-1059 3094-05F | BU101 |
| 5322 265 40634 | CONNECTOR | 12.00 | POL | 76382-312 | BU102 |
| 5322 265 64028 | CONNECTOR | 10.00 | POL | 22-03-2101 4030-10A | BU103 |
| 5322 265 64028 | CONNECTOR | 10.00 | POL | 22-03-2101 4030-10A | BU104 |
| 5322 265 40197 | CONNECTOR | 10.00 | POL | F095 DOUBLE ROW | BU105 |
| 5322 124 10652 | CAPACITOR | 22.00 | UF | 6V 195D226X0006F2 | C101 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C102 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C103 |
| 5322 124 10652 | CAPACITOR | 22.00 | UF | 6V 195D226X0006F2 | C106 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C107 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C108 |
| 4822 121 41677 | CAPACITOR | 10.00 | NF | 10% 400V 3X10 3M | C112 |
| 5322 125 50051 | CAPACITOR | 18.00 | PF | 2.0-18PF 300V | C113 |
| 5322 122 32448 | CAPACITOR | 10.00 | PF | 5% 50V NPO 0805 | C116 |
| 5322 125 50049 | CAPACITOR | 10.00 | PF | 1,8-10PF 300V | C117 |
| 5322 124 10652 | CAPACITOR | 22.00 | UF | 6V 195D226X0006F2 | C118 |
| 5322 122 34082 | CAPACITOR | 100.00 | NF | 20% 50V X7R 1808 | C119 |
| 5322 122 32452 | CAPACITOR | 47.00 | PF | 5% 50V NPO 0805 | C120 |
| 5322 122 32452 | CAPACITOR | 47.00 | PF | 5% 50V NPO 0805 | C121 |
| 5322 122 34082 | CAPACITOR | 100.00 | NF | 20% 50V X7R 1808 | C122 |
| 5322 124 10653 | CAPACITOR | 3.30 | UF | 6V 195D335X0006B2 | C123 |
| 5322 122 34082 | CAPACITOR | 100.00 | NF | 20% 50V X7R 1808 | C126 |
| 5322 124 41367 | CAPACITOR | 6800.00 | UF | 20% 16V ECEA1CU682 | C127 |
| 5322 124 41366 | CAPACITOR | 2200.00 | UF | 20% 16V ECEA1CU222 | C128 |
| 5322 124 10654 | CAPACITOR | 1.50 | UF | 15V 195D155X0015B2 | C129 |
| 5322 124 10654 | CAPACITOR | 1.50 | UF | 15V 195D155X0015B2 | C130 |
| 5322 124 10653 | CAPACITOR | 3.30 | UF | 6V 195D335X0006B2 | C131 |
| 5322 124 10653 | CAPACITOR | 3.30 | UF | 6V 195D335X0006B2 | C132 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C134 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C135 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C136 |
| 5322 122 32269 | CAPACITOR | 68.00 | PF | 5% 50V NPO 0805 | C137 |
| 5322 122 32532 | CAPACITOR | 100.00 | PF | 5% 50V NPO 0805 | C138 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C139 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C140 |
| 5322 122 32268 | CAPACITOR | 470.00 | PF | 5% 50V NPO 0805 | C141 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C142 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C143 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C144 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C145 |
| 5322 122 34082 | CAPACITOR | 100.00 | NF | 20% 50V X7R 1808 | C146 |
| 5322 122 34123 | CAPACITOR | 1.00 | NF | 20% 50V X7R 0805 | C147 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C148 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C149 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C152 |
| 4822 121 41677 | CAPACITOR | 10.00 | NF | 10% 400V 3X10 3M | C153 |
| 5322 122 32448 | CAPACITOR | 10.00 | PF | 5% 50V NPO 0805 | C154 |
| 5322 125 50051 | CAPACITOR | 18.00 | PF | 2.0-18PF 300V | C155 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C157 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C158 |
| 5322 125 50049 | CAPACITOR | 10.00 | PF | 1,8-10PF 300V | C159 |
| 5322 122 32269 | CAPACITOR | 68.00 | PF | 5% 50V NPO 0805 | C160 |
| 5322 122 32532 | CAPACITOR | 100.00 | PF | 5% 50V NPO 0805 | C161 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C162 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C163 |
| 5322 122 32268 | CAPACITOR | 470.00 | PF | 5% 50V NPO 0805 | C164 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C165 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C166 |

PM6665 DATE: 87-05-12

| SERVICECODE | DESCRIPTION | ARTICLE SPECIFICATION | | | POS-NR |
|---|---|---|---|---|---|
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C167 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C168 |
| 5322 122 34082 | CAPACITOR | 100.00 | NF | 20% 50V X7R 1808 | C169 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C170 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C171 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C172 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C173 |
| 5322 122 32448 | CAPACITOR | 10.00 | PF | 5% 50V NP0 0805 | C174 |
| 5322 122 32448 | CAPACITOR | 10.00 | PF | 5% 50V NP0 0805 | C175 |
| 5322 130 32739 | DIODE | 0.35 | W | BZX84/C3V0 SOT23 | GR101 |
| 4822 130 32656 | DIODE | 0.10 | A | BA483 35V SOD-58 | GR102 |
| 4822 130 32656 | DIODE | 0.10 | A | BA483 35V SOD-58 | GR103 |
| 5322 130 32739 | DIODE | 0.35 | W | BZX84/C3V0 SOT23 | GR104 |
| 5322 130 32739 | DIODE | 0.35 | W | BZX84/C3V0 SOT23 | GR105 |
| 4822 130 32656 | DIODE | 0.10 | A | BA483 35V SOD-58 | GR106 |
| 4822 130 32656 | DIODE | 0.10 | A | BA483 35V SOD-58 | GR107 |
| 5322 130 32739 | DIODE | 0.35 | W | BZX84/C3V0 SOT23 | GR108 |
| 5322 130 34337 | DIODE | 0.10 | A | BAV99 SOT23 | GR109 |
| 5322 130 30691 | DIODE | 0.25 | A | BAW56 70V SOT23 | GR111 |
| 5322 130 30691 | DIODE | 0.25 | A | BAW56 70V SOT23 | GR112 |
| 4822 130 32003 | BRIDGE RECTIF | 4.00 | A | KBL02 200V | GR114 |
| 5322 130 30691 | DIODE | 0.25 | A | BAW56 70V SOT23 | GR115 |
| 5322 130 30691 | DIODE | 0.25 | A | BAW56 70V SOT23 | GR117 |
| 5322 209 83069 | IC | 0.00 | | TLC271CP DIL-8 | IC101 |
| 5322 209 83069 | IC | 0.00 | | TLC271CP DIL-8 | IC102 |
| 5322 209 71552 | IC | 0.00 | | AM687ADL | IC103 |
| 5322 209 71559 | LSI | 0.00 | | 0Q0501 | IC104 |
| 5322 255 40421 | IC-SOCKET | 24.00 | POL | DIL | IC104 |
| 5322 209 51236 | IC-MICROP | 0.00 | | PM6665-69 D2764 | IC105 |
| 5322 209 51241 | IC-MICROP | 0.00 | | PM6665-69 D2764 | IC105 |
| 5322 255 40234 | IC-SOCKET | 28.00 | POL | DIL | IC105 |
| 5322 209 84454 | IC | 5.00 | V | MC7805CT 1A TO-220 | IC106 |
| 5322 130 44843 | IC | -5.00 | V | MC7905CT 1A TO-220 | IC107 |
| 5322 209 86203 | IC | 0.00 | | MC10138P | IC108 |
| 5322 209 70313 | IC | 0.00 | | MC10125P | IC109 |
| 5322 209 71555 | IC | 0.00 | | PC74HC373T SO-20 | IC110 |
| 5322 265 60251 | CONNECTOR | 4.00 | POL | F095 DOUBLE ROW | JP101 |
| 5322 111 90094 | RESISTOR | 10.00 | MOHM | 10% 0.25W RC-01 1206 | R101 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R103 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R104 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R105 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R106 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R107 |
| 4822 111 90573 | RESISTOR | 56.00 | KOHM | 5% 0.25W RC-01 1206 | R108 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R109 |
| 5322 111 90098 | RESISTOR | 150.00 | OHM | 5% 0.25W RC-01 1206 | R110 |
| 4822 111 90339 | RESISTOR | 120.00 | OHM | 5% 0.25W RC-01 1206 | R111 |
| 4822 111 90572 | RESISTOR | 5.60 | KOHM | 5% 0.25W RC-01 1206 | R112 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R113 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R114 |
| 5322 111 90094 | RESISTOR | 10.00 | MOHM | 10% 0.25W RC-01 1206 | R115 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R116 |
| 5322 101 20941 | POTENTIOMETER | 1.00 | KOHM | PM6665 | R117 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R118 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R119 |
| 4822 111 90249 | RESISTOR | 10.00 | KOHM | 5% 0.25W RC-01 1206 | R121 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R122 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R123 |
| 5322 111 90096 | RESISTOR | 1.20 | KOHM | 5% 0.25W RC-01 1206 | R125 |
| 4822 111 90248 | RESISTOR | 2.20 | KOHM | 5% 0.25W RC-01 1206 | R126 |

PM6665 DATE: 87-05-12

| SERVICECODE | DESCRIPTION | ARTICLE SPECIFICATION | | | POS-NR |
|---|---|---|---|---|---|
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R127 |
| 4822 111 90157 | RESISTOR | 3.30 | KOHM | 5% 0.25W RC-01 1206 | R128 |
| 5322 100 11143 | POTENTIOMETER | 10.00 | KOHM | 25% 0.1W 3304X-1-103 | R129 |
| 5322 111 90267 | RESISTOR | 33.00 | KOHM | 5% 0.25W RC-01 1206 | R130 |
| 5322 100 11144 | POTENTIOMETER | 500.00 | OHM | 25% 0.1W OPEN CERM | R131 |
| 5322 111 90106 | RESISTOR | 330.00 | OHM | 5% 0.25W RC-01 1206 | R132 |
| 5322 111 90106 | RESISTOR | 330.00 | OHM | 5% 0.25W RC-01 1206 | R133 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R134 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R135 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R136 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R137 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R138 |
| 5322 111 90094 | RESISTOR | 10.00 | MOHM | 10% 0.25W RC-01 1206 | R139 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R141 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R142 |
| 4822 111 90573 | RESISTOR | 56.00 | KOHM | 5% 0.25W RC-01 1206 | R143 |
| 4822 111 90178 | RESISTOR | 220.00 | OHM | 5% 0.25W RC-01 1206 | R144 |
| 4822 111 90178 | RESISTOR | 220.00 | OHM | 5% 0.25W RC-01 1206 | R145 |
| 5322 111 90111 | RESISTOR | 4.70 | KOHM | 5% 0.25W RC-01 1206 | R146 |
| 4822 111 90151 | RESISTOR | 1.50 | KOHM | 5% 0.25W RC-01 1206 | R147 |
| 4822 111 90151 | RESISTOR | 1.50 | KOHM | 5% 0.25W RC-01 1206 | R148 |
| 4822 111 90249 | RESISTOR | 10.00 | KOHM | 5% 0.25W RC-01 1206 | R149 |
| 4822 111 90161 | RESISTOR | 470.00 | KOHM | 5% 0.25W RC-01 1206 | R151 |
| 4822 111 90161 | RESISTOR | 470.00 | KOHM | 5% 0.25W RC-01 1206 | R152 |
| 4822 111 90161 | RESISTOR | 470.00 | KOHM | 5% 0.25W RC-01 1206 | R153 |
| 4822 111 90162 | RESISTOR | 680.00 | OHM | 5% 0.25W RC-01 1206 | R154 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R155 |
| 5322 111 90098 | RESISTOR | 150.00 | OHM | 5% 0.25W RC-01 1206 | R156 |
| 4822 111 90339 | RESISTOR | 120.00 | OHM | 5% 0.25W RC-01 1206 | R157 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R158 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R159 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R160 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R161 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R162 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R164 |
| 5322 101 20941 | POTENTIOMETER | 1.00 | KOHM | PM6665 | R165 |
| 4822 111 90249 | RESISTOR | 10.00 | KOHM | 5% 0.25W RC-01 1206 | R166 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R167 |
| 4822 111 90572 | RESISTOR | 5.60 | KOHM | 5% 0.25W RC-01 1206 | R168 |
| 5322 111 90094 | RESISTOR | 10.00 | MOHM | 10% 0.25W RC-01 1206 | R169 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R170 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R171 |
| 5322 111 90096 | RESISTOR | 1.20 | KOHM | 5% 0.25W RC-01 1206 | R173 |
| 4822 111 90248 | RESISTOR | 2.20 | KOHM | 5% 0.25W RC-01 1206 | R174 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R175 |
| 4822 111 90157 | RESISTOR | 3.30 | KOHM | 5% 0.25W RC-01 1206 | R176 |
| 5322 100 11143 | POTENTIOMETER | 10.00 | KOHM | 25% 0.1W 3304X-1-103 | R177 |
| 5322 111 90106 | RESISTOR | 330.00 | OHM | 5% 0.25W RC-01 1206 | R178 |
| 5322 111 90106 | RESISTOR | 330.00 | OHM | 5% 0.25W RC-01 1206 | R179 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R180 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R181 |
| 4822 276 11076 | KEY SWITCH | 1.00 | POL | DW-5112 TYPE VKS | SK103 |
| 5322 414 20031 | PUSH BUTTON | 0.00 | VKS | 6.5X6.5 L-BR 30304 | SK103 |
| 5322 277 21124 | VOLTAGE SWITCH | 0.00 | | V202-12-MA-08-QA | SK104 |
| 5322 276 12192 | PUSH SWITCH | 1.00 | CELL | PM6665-69 | SK106 |
| 5322 146 21229 | TRANSFORMER | 0.00 | | PM6665-69 | TR101 |
| 5322 130 44787 | TRANSISTOR | 0.00 | | BFR31 .01A 25V SOT23 | TS101 |
| 5322 130 40781 | TRANSISTOR | 0.00 | | BFS17 .05A 15V SOT23 | TS102 |
| 5322 130 44787 | TRANSISTOR | 0.00 | | BFR31 .01A 25V SOT23 | TS103 |
| 5322 130 40781 | TRANSISTOR | 0.00 | | BFS17 .05A 15V SOT23 | TS104 |

PM6665 DATE: 87-05-12

| SERVICECODE | DESCRIPTION | | | ARTICLE SPECIFICATION | POS-NR |
|---|---|---|---|---|---|
| FRONT PANEL, U2 | | | | | |
| 5322 267 50336 | CONNECTOR | 10.00 | POL | 22-14-2104 4455-BC | BU201 |
| 5322 122 32453 | CAPACITOR | 10.00 | NF | 20% 50V X7R 0805 | C201 |
| 5322 130 30691 | DIODE | 0.25 | A | BAW56 70V SOT23 | GR201 |
| 5322 130 30691 | DIODE | 0.25 | A | BAW56 70V SOT23 | GR203 |
| 5322 130 30691 | DIODE | 0.25 | A | BAW56 70V SOT23 | GR204 |
| 5322 209 11129 | IC | 0.00 | | PCF8576T VS056 | IC201 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R201 |
| 4822 276 11076 | KEY SWITCH | 1.00 | POL | DW-5112 TYPE VKS | SK201 |
| 5322 414 20031 | PUSH BUTTON | 0.00 | VKS | 6.5X6.5 L-BR 30304 | SK201 |
| 4822 276 11076 | KEY SWITCH | 1.00 | POL | DW-5112 TYPE VKS | SK202 |
| 5322 414 20031 | PUSH BUTTON | 0.00 | VKS | 6.5X6.5 L-BR 30304 | SK202 |
| 4822 276 11076 | KEY SWITCH | 1.00 | POL | DW-5112 TYPE VKS | SK203 |
| 5322 414 60146 | PUSH BUTTON | 0.00 | VKS | 6.5X6.5 BEIGE 40317 | SK203 |
| 4822 276 11076 | KEY SWITCH | 1.00 | POL | DW-5112 TYPE VKS | SK204 |
| 5322 414 20031 | PUSH BUTTON | 0.00 | VKS | 6.5X6.5 L-BR 30304 | SK204 |
| 4822 276 11076 | KEY SWITCH | 1.00 | POL | DW-5112 TYPE VKS | SK205 |
| 5322 414 20031 | PUSH BUTTON | 0.00 | VKS | 6.5X6.5 L-BR 30304 | SK205 |

PM6669 DATE: 87-05-12

| SERVICECODE | DESCRIPTION | | ARTICLE SPECIFICATION | POS-NR |
|---|---|---|---|---|
| BASIC BOARD, U1 | | | | |
| 5322 265 40379 | CONNECTOR | 5.00 POL | 22-05-1059 3094-05F | BU101 |
| 5322 265 40634 | CONNECTOR | 12.00 POL | 76382-312 | BU102 |
| 5322 265 64028 | CONNECTOR | 10.00 POL | 22-03-2101 4030-10A | BU103 |
| 5322 265 64028 | CONNECTOR | 10.00 POL | 22-03-2101 4030-10A | BU104 |
| 5322 265 40197 | CONNECTOR | 10.00 POL | F095 DOUBLE ROW | BU105 |
| 5322 121 40308 | CAPACITOR | 22.00 NF | 10% 400V | C101 |
| 5322 122 32549 | CAPACITOR | 3.30 PF | +-0.25PF 500V NP0 2M | C102 |
| 5322 122 32269 | CAPACITOR | 68.00 PF | 5% 50V NP0 0805 | C103 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C104 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C105 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C106 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C107 |
| 5322 122 33062 | CAPACITOR | 270.00 PF | 10% 500V 2M | C108 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C109 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C110 |
| 5322 122 34082 | CAPACITOR | 100.00 NF | 20% 50V X7R 1808 | C111 |
| 5322 122 32452 | CAPACITOR | 47.00 PF | 5% 50V NP0 0805 | C112 |
| 5322 124 10455 | CAPACITOR | 68.00 UF | 20% 6.3V SOLID AL | C113 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C114 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C115 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C116 |
| 5322 124 10652 | CAPACITOR | 22.00 UF | 6V 195D226X0006F2 | C118 |
| 5322 122 34082 | CAPACITOR | 100.00 NF | 20% 50V X7R 1808 | C119 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C120 |
| 5322 122 32452 | CAPACITOR | 47.00 PF | 5% 50V NP0 0805 | C121 |
| 5322 122 34082 | CAPACITOR | 100.00 NF | 20% 50V X7R 1808 | C122 |
| 5322 124 10653 | CAPACITOR | 3.30 UF | 6V 195D335X0006B2 | C123 |
| 5322 122 34082 | CAPACITOR | 100.00 NF | 20% 50V X7R 1808 | C126 |
| 5322 124 41367 | CAPACITOR | 6800.00 UF | 20% 16V ECEA1CU682 | C127 |
| 5322 124 41366 | CAPACITOR | 2200.00 UF | 20% 16V ECEA1CU222 | C128 |
| 5322 124 10654 | CAPACITOR | 1.50 UF | 15V 195D155X0015B2 | C129 |
| 5322 124 10654 | CAPACITOR | 1.50 UF | 15V 195D155X0015B2 | C130 |
| 5322 124 10653 | CAPACITOR | 3.30 UF | 6V 195D335X0006B2 | C131 |
| 5322 124 10653 | CAPACITOR | 3.30 UF | 6V 195D335X0006B2 | C132 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C133 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C134 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C135 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C136 |
| 5322 122 32448 | CAPACITOR | 10.00 PF | 5% 50V NP0 0805 | C137 |
| 5322 122 34082 | CAPACITOR | 100.00 NF | 20% 50V X7R 1808 | C138 |
| 5322 122 32452 | CAPACITOR | 47.00 PF | 5% 50V NP0 0805 | C139 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C140 |
| 5322 122 32453 | CAPACITOR | 10.00 NF | 20% 50V X7R 0805 | C171 |
| 5322 130 34337 | DIODE | 0.10 A | BAV99 SOT23 | GR101 |
| 5322 130 34337 | DIODE | 0.10 A | BAV99 SOT23 | GR103 |
| 5322 130 34337 | DIODE | 0.10 A | BAV99 SOT23 | GR109 |
| 5322 130 30691 | DIODE | 0.25 A | BAW56 70V SOT23 | GR111 |
| 5322 130 30691 | DIODE | 0.25 A | BAW56 70V SOT23 | GR112 |
| 4822 130 32003 | BRIDGE RECTIF | 4.00 A | KBL02 200V | GR114 |
| 5322 209 71556 | IC | 0.00 | SP9680 DIL-8 | IC101 |
| 5322 209 86203 | IC | 0.00 | MC10138P | IC102 |
| 5322 209 70313 | IC | 0.00 | MC10125P | IC103 |
| 5322 209 71559 | LSI | 0.00 | OQ0501 | IC104 |
| 5322 255 40421 | IC-SOCKET | 24.00 POL | DIL | IC104 |
| 5322 209 51236 | IC-MICROP | 0.00 | PM6665-69 D2764 | IC105 |
| 5322 209 51241 | IC-MICROP | 0.00 | PM6665-69 D2764 | IC105 |
| 5322 255 40234 | IC-SOCKET | 28.00 POL | DIL | IC105 |
| 5322 209 84454 | IC | 5.00 V | MC7805CT 1A TO-220 | IC106 |

PM6669 DATE: 87-05-12

| SERVICECODE | DESCRIPTION | ARTICLE SPECIFICATION | | | POS-NR |
|---|---|---|---|---|---|
| 5322 130 44843 | IC | -5.00 | V | MC7905CT 1A TO-220 | IC107 |
| 5322 209 71555 | IC | 0.00 | | PC74HC373T SO-20 | IC110 |
| 5322 265 60251 | CONNECTOR | 4.00 | POL | F095 DOUBLE ROW | JP101 |
| 5322 263 50101 | CONNECTOR | 2.00 | POL | F095 JUMPER GREY | JP101 |
| 5322 265 44074 | CONNECTOR | 2.00 | POL | F095 SINGLE ROW | JP102 |
| 5322 158 10243 | CHOKE | 100.00 | UH | 10% Q=50 1641-104 | L101 |
| 5322 111 90094 | RESISTOR | 10.00 | MOHM | 10% 0.25W RC-01 1206 | R101 |
| 5322 111 90094 | RESISTOR | 10.00 | MOHM | 10% 0.25W RC-01 1206 | R102 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R103 |
| 4822 111 90169 | RESISTOR | 560.00 | KOHM | 5% 0.25W RC-01 1206 | R104 |
| 4822 111 90573 | RESISTOR | 56.00 | KOHM | 5% 0.25W RC-01 1206 | R105 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R106 |
| 4822 111 90203 | RESISTOR | 68.00 | OHM | 5% 0.25W RC-01 1206 | R107 |
| 4822 111 90203 | RESISTOR | 68.00 | OHM | 5% 0.25W RC-01 1206 | R108 |
| 4822 111 90214 | RESISTOR | 100.00 | KOHM | 5% 0.25W RC-01 1206 | R109 |
| 4822 111 90249 | RESISTOR | 10.00 | KOHM | 5% 0.25W RC-01 1206 | R110 |
| 4822 111 90249 | RESISTOR | 10.00 | KOHM | 5% 0.25W RC-01 1206 | R111 |
| 5322 111 90106 | RESISTOR | 330.00 | OHM | 5% 0.25W RC-01 1206 | R112 |
| 5322 111 90106 | RESISTOR | 330.00 | OHM | 5% 0.25W RC-01 1206 | R113 |
| 4822 111 90203 | RESISTOR | 68.00 | OHM | 5% 0.25W RC-01 1206 | R114 |
| 4822 111 90203 | RESISTOR | 68.00 | OHM | 5% 0.25W RC-01 1206 | R115 |
| 5322 101 20942 | POTENTIOMETER | 500.00 | OHM | PM6669 | R116 |
| 4822 111 90344 | RESISTOR | 15.00 | OHM | 5% 0.25W RC-01 1206 | R117 |
| 5322 100 11143 | POTENTIOMETER | 10.00 | KOHM | 25% 0.1W 3304X-1-103 | R118 |
| 4822 111 90197 | RESISTOR | 220.00 | KOHM | 5% 0.25W RC-01 1206 | R119 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R120 |
| 4822 111 90357 | RESISTOR | 33.00 | OHM | 5% 0.25W RC-01 1206 | R121 |
| 5322 111 90118 | RESISTOR | 8.20 | KOHM | 5% 0.25W RC-01 1206 | R122 |
| 4822 111 90217 | RESISTOR | 47.00 | OHM | 5% 0.25W RC-01 1206 | R123 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R124 |
| 5322 111 90118 | RESISTOR | 8.20 | KOHM | 5% 0.25W RC-01 1206 | R125 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R126 |
| 5322 111 90118 | RESISTOR | 8.20 | KOHM | 5% 0.25W RC-01 1206 | R127 |
| 5322 111 90118 | RESISTOR | 8.20 | KOHM | 5% 0.25W RC-01 1206 | R128 |
| 4822 111 90569 | RESISTOR | 2.70 | KOHM | 5% 0.25W RC-01 1206 | R129 |
| 5322 111 90106 | RESISTOR | 330.00 | OHM | 5% 0.25W RC-01 1206 | R130 |
| 5322 111 90106 | RESISTOR | 330.00 | OHM | 5% 0.25W RC-01 1206 | R131 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R132 |
| 5322 111 90092 | RESISTOR | 1.00 | KOHM | 5% 0.25W RC-01 1206 | R133 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R134 |
| 5322 111 90109 | RESISTOR | 470.00 | OHM | 5% 0.25W RC-01 1206 | R135 |
| 4822 111 90178 | RESISTOR | 220.00 | OHM | 5% 0.25W RC-01 1206 | R144 |
| 4822 111 90178 | RESISTOR | 220.00 | OHM | 5% 0.25W RC-01 1206 | R145 |
| 4822 111 90162 | RESISTOR | 680.00 | OHM | 5% 0.25W RC-01 1206 | R146 |
| 4822 111 90151 | RESISTOR | 1.50 | KOHM | 5% 0.25W RC-01 1206 | R147 |
| 4822 111 90151 | RESISTOR | 1.50 | KOHM | 5% 0.25W RC-01 1206 | R148 |
| 4822 111 90249 | RESISTOR | 10.00 | KOHM | 5% 0.25W RC-01 1206 | R149 |
| 4822 111 90161 | RESISTOR | 470.00 | KOHM | 5% 0.25W RC-01 1206 | R151 |
| 4822 111 90161 | RESISTOR | 470.00 | KOHM | 5% 0.25W RC-01 1206 | R152 |
| 4822 111 90161 | RESISTOR | 470.00 | KOHM | 5% 0.25W RC-01 1206 | R153 |
| 5322 111 90111 | RESISTOR | 4.70 | KOHM | 5% 0.25W RC-01 1206 | R154 |
| 5322 276 11447 | PUSH SWITCH | 1.00 | CELL | PM6673-77 | SK102 |
| 5322 414 20031 | PUSH BUTTON | 0.00 | VKS | 6.5X6.5 L-BR 30304 | SK103 |
| 4822 276 11076 | KEY SWITCH | 1.00 | POL | DW-5112 TYPE VKS | SK103 |
| 5322 277 21124 | VOLTAGE SWITCH | 0.00 | | V202-12-MA-08-QA | SK104 |
| 5322 276 12192 | PUSH SWITCH | 1.00 | CELL | PM6665-69 | SK106 |
| 5322 146 21229 | TRANSFORMER | 0.00 | | PM6665-69 | TR101 |
| 5322 130 44343 | TRANSISTOR | 0.00 | | BFR30 .01A 25V SOT23 | TS101 |
| 5322 130 40781 | TRANSISTOR | 0.00 | | BFS17 .05A 15V SOT23 | TS102 |

PM6669 DATE: 87-05-12

| SERVICECODE | DESCRIPTION | ARTICLE SPECIFICATION | POS-NR |
|---|---|---|---|
| FRONT PANEL, U2 | | | |
| 5322 267 50336 | CONNECTOR | 10.00 POL 22-14-2104 4455-BC | BU201 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C201 |
| 5322 130 30691 | DIODE | 0.25 A BAW56 70V SOT23 | GR201 |
| 5322 130 30691 | DIODE | 0.25 A BAW56 70V SOT23 | GR203 |
| 5322 130 30691 | DIODE | 0.25 A BAW56 70V SOT23 | GR204 |
| 5322 130 30691 | DIODE | 0.25 A BAW56 70V SOT23 | GR205 |
| 5322 209 11129 | IC | 0.00 PCF8576T VSO56 | IC201 |
| 4822 111 90214 | RESISTOR | 100.00 KOHM 5% 0.25W RC-01 1206 | R201 |
| 5322 414 20031 | PUSH BUTTON | 0.00 VKS 6.5X6.5 L-BR 30304 | SK201 |
| 4822 276 11076 | KEY SWITCH | 1.00 POL DW-5112 TYPE VKS | SK201 |
| 5322 414 20031 | PUSH BUTTON | 0.00 VKS 6.5X6.5 L-BR 30304 | SK202 |
| 4822 276 11076 | KEY SWITCH | 1.00 POL DW-5112 TYPE VKS | SK202 |
| 5322 414 60146 | PUSH BUTTON | 0.00 VKS 6.5X6.5 BEIGE 40317 | SK203 |
| 4822 276 11076 | KEY SWITCH | 1.00 POL DW-5112 TYPE VKS | SK203 |
| 5322 414 20031 | PUSH BUTTON | 0.00 VKS 6.5X6.5 L-BR 30304 | SK204 |
| 4822 276 11076 | KEY SWITCH | 1.00 POL DW-5112 TYPE VKS | SK204 |
| 5322 414 20031 | PUSH BUTTON | 0.00 VKS 6.5X6.5 L-BR 30304 | SK205 |
| 4822 276 11076 | KEY SWITCH | 1.00 POL DW-5112 TYPE VKS | SK205 |
| 5322 414 20031 | PUSH BUTTON | 0.00 VKS 6.5X6.5 L-BR 30304 | SK206 |
| 4822 276 11076 | KEY SWITCH | 1.00 POL DW-5112 TYPE VKS | SK206 |

PM6665,-69 DATE: 87-05-12

| SERVICECODE | DESCRIPTION | ARTICLE SPECIFICATION | | | POS-NR |
|---|---|---|---|---|---|
| X-TAL OSCILLATOR, U4 | | | | | |
| 5322 267 54195 | CONNECTOR | 10.00 | POL | 22-15-2106 4455-AC | BU404 |
| 4822 122 31414 | CAPACITOR | 10.00 | NF | -20/+50% 100V 2M | C401 |
| 4822 122 31237 | CAPACITOR | 82.00 | PF | 2% 100V NP0 2M | C402 |
| 5322 125 54029 | CAPACITOR | 18.00 | PF | 2-18PF 300V | C403 |
| 4822 122 31063 | CAPACITOR | 22.00 | PF | 2% 100V NP0 2M | C404 |
| 4822 122 31237 | CAPACITOR | 82.00 | PF | 2% 100V NP0 2M | C405 |
| 5322 209 11455 | IC | 0.00 | | MM74HCU04N | IC401 |
| 5322 242 74163 | CRYSTAL | 10.00 | MHZ | PM9677 HC-49U | KT401 |
| 5322 116 55535 | RESISTOR | 1.00 | MOHM | 1% 0.4W MR25 | R401 |
| 5322 116 55274 | RESISTOR | 215.00 | OHM | 1% 0.4W MR25 | R402 |
| 4822 116 53108 | RESISTOR | 1.00 | KOHM | 1% 0.5W MRS25 | R403 |
| 4822 116 53022 | RESISTOR | 10.00 | KOHM | 1% 0.5W MRS25 | R404 |

## /.3. oscillator (MTCXO)

Repair of this oscillator cannot be carried out by the local service organization so no spare parts are available. The complete oscillator unit must be sent to the factory for repair.

Contact your local Philips organization.

PM9604 GPIB DATE: 87-05-11

| SERVICECODE | DESCRIPTION | ARTICLE SPECIFICATION | | | POS-NR |
|---|---|---|---|---|---|
| 5322 267 60148 | CONNECTOR | 24.00 | POL | 57LE-20240-7700D35G | BU101 |
| 5322 321 22315 | CABLE ASSY | | | PM9604 | BU102 |
| 5322 124 14075 | CAPACITOR | 1.00 | UF | 20% 40V (25V) SOL AL | C1 |
| 5322 121 42525 | CAPACITOR | 470.00 | NF | 10% 63V MMKO-5 PETP | C2 |
| 5322 121 42525 | CAPACITOR | 470.00 | NF | 10% 63V MMKO-5 PETP | C3 |
| 4822 122 31414 | CAPACITOR | 10.00 | NF | -20/+50% 100V 2M | C4 |
| 4822 122 31414 | CAPACITOR | 10.00 | NF | -20/+50% 100V 2M | C5 |
| 4822 122 31414 | CAPACITOR | 10.00 | NF | -20/+50% 100V 2M | C6 |
| 4822 130 30621 | DIODE | 0.20 | A | 1N4148/75 DO-35 | GR1 |
| 5322 255 40233 | IC-SOCKET | 40.00 | POL | DIL | IC1 |
| 5322 209 81264 | IC | | | P8291A TALK/LISTEN | IC1 |
| 5322 209 51242 | IC | | | PM9604 D2764 | IC2 |
| 5322 255 40234 | IC-SOCKET | 28.00 | POL | DIL | IC2 |
| 5322 209 71577 | IC | | | MAB8400B DIL-28 | IC2 |
| 5322 209 81842 | IC | | | SN75161AN | IC3 |
| 5322 209 81807 | IC | | | SN75160AN | IC4 |
| 4822 209 10317 | IC | | | HEF40097BP | IC5 |
| 5322 209 84454 | IC | 5.00 | V | MC7805CT 1A TO-220 | IC6 |
| 5322 111 94031 | RES. NETWORK | 47.00 | KOHM | 10%x6 1/8W | R1 |
| 5322 116 53232 | RESISTOR | 464.00 | OHM | 1% 0.5W MRS25 | R8 |
| 5322 277 21125 | DIP SWITCH | 6.00 | POL | 206-6 RAST | SW1 |
| 4822 130 40824 | TRANSISTOR | | | BD136 1.5A 45V TO-126 | TS1 |

PM9608 PRESCALER DATE: 87-05-11

| SERVICECODE | DESCRIPTION | ARTICLE SPECIFICATION | POS-NR |
|---|---|---|---|
| 5322 321 22313 | CABLE ASSY | 0.00 PM9608 PRESCAL | |
| 5322 267 60199 | CONNECTOR | 0.00 R 114426 SMB | BU301 |
| 5322 290 30191 | SOLDERING PIN | 2.80 MM E242.5 SN | BU302 |
| 5322 267 54195 | CONNECTOR | 10.00 POL 22-15-2106 4455-AC | BU303 |
| 5322 290 30191 | SOLDERING PIN | 2.80 MM E242.5 SN | BU304 |
| 5322 122 32532 | CAPACITOR | 100.00 PF 5% 50V NP0 0805 | C301 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C302 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C303 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C304 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C305 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C306 |
| 5322 122 32452 | CAPACITOR | 47.00 PF 5% 50V NP0 0805 | C307 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C308 |
| 5322 122 32451 | CAPACITOR | 4.70 PF 5% 50V NP0 0805 | C310 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C311 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C312 |
| 5322 122 32448 | CAPACITOR | 10.00 PF 5% 50V NP0 0805 | C313 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C314 |
| 5322 122 33063 | CAPACITOR | 2.20 PF 5% 50V NP0 0805 | C316 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C317 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C318 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C319 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C320 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C321 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C322 |
| 5322 122 32446 | CAPACITOR | 470.00 NF 20% 50V X7R 2220 | C323 |
| 5322 122 34123 | CAPACITOR | 1.00 NF 20% 50V X7R 0805 | C324 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C325 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C326 |
| 5322 122 32453 | CAPACITOR | 10.00 NF 20% 50V X7R 0805 | C327 |
| 5322 130 31544 | DIODE | 0.03 A BAT17 SOT23 | GR303 |
| 5322 130 31544 | DIODE | 0.03 A BAT17 SOT23 | GR304 |
| 5322 130 31544 | DIODE | 0.03 A BAT17 SOT23 | GR305 |
| 5322 130 31544 | DIODE | 0.03 A BAT17 SOT23 | GR306 |
| 5322 130 31544 | DIODE | 0.03 A BAT17 SOT23 | GR307 |
| 5322 130 34337 | DIODE | 0.10 A BAV99 SOT23 | GR308 |
| 5322 130 31544 | DIODE | 0.03 A BAT17 SOT23 | GR309 |
| 5322 130 80246 | DIODE | 0.00 BAR 16-1 SOT23 | GR311 |
| 5322 130 34337 | DIODE | 0.10 A BAV99 SOT23 | GR313 |
| 5322 209 71557 | IC | 1.20 GHZ UPC1652G SO-8 VAR | IC301 |
| 5322 209 71554 | IC | 1.00 GHZ SAB1256P /256 DIL-8 | IC302 |
| 5322 209 71553 | IC | 0.00 NE532D DUAL SO-8 | IC303 |
| 5322 157 52689 | CHOKE | 0.10 UH 10% MLF3216DR10K | L301 |
| 5322 157 52689 | CHOKE | 0.10 UH 10% MLF3216DR10K | L307 |
| 5322 111 90109 | RESISTOR | 470.00 OHM 5% 0.25W RC-01 1206 | R301 |
| 5322 111 90109 | RESISTOR | 470.00 OHM 5% 0.25W RC-01 1206 | R302 |
| 5322 111 90109 | RESISTOR | 470.00 OHM 5% 0.25W RC-01 1206 | R303 |
| 4822 111 90186 | RESISTOR | 22.00 OHM 5% 0.25W RC-01 1206 | R304 |
| 4822 111 90186 | RESISTOR | 22.00 OHM 5% 0.25W RC-01 1206 | R305 |
| 4822 111 90186 | RESISTOR | 22.00 OHM 5% 0.25W RC-01 1206 | R306 |
| 4822 111 90186 | RESISTOR | 22.00 OHM 5% 0.25W RC-01 1206 | R307 |
| 4822 111 90186 | RESISTOR | 22.00 OHM 5% 0.25W RC-01 1206 | R308 |
| 4822 111 90186 | RESISTOR | 22.00 OHM 5% 0.25W RC-01 1206 | R309 |
| 4822 111 90154 | RESISTOR | 270.00 OHM 5% 0.25W RC-01 1206 | R310 |
| 5322 111 90106 | RESISTOR | 330.00 OHM 5% 0.25W RC-01 1206 | R311 |
| 5322 111 90106 | RESISTOR | 330.00 OHM 5% 0.25W RC-01 1206 | R312 |
| 4822 111 90397 | RESISTOR | 8.20 OHM 10% 0.25W RC-01 1206 | R313 |
| 5322 111 90098 | RESISTOR | 150.00 OHM 5% 0.25W RC-01 1206 | R314 |
| 4822 111 90397 | RESISTOR | 8.20 OHM 10% 0.25W RC-01 1206 | R315 |
| 4822 111 90178 | RESISTOR | 220.00 OHM 5% 0.25W RC-01 1206 | R316 |

PM9608 PRESCALER DATE: 87-05-11

| SERVICECODE | DESCRIPTION | ARTICLE SPECIFICATION | | | POS-NR |
|---|---|---|---|---|---|
| 4822 111 90217 | RESISTOR | 47.00 OHM | 5% 0.25W RC-01 | 1206 | R319 |
| 5322 111 90095 | RESISTOR | 10.00 OHM | 5% 0.25W RC-01 | 1206 | R320 |
| 4822 111 90217 | RESISTOR | 47.00 OHM | 5% 0.25W RC-01 | 1206 | R321 |
| 4822 111 90217 | RESISTOR | 47.00 OHM | 5% 0.25W RC-01 | 1206 | R322 |
| 5322 111 90091 | RESISTOR | 100.00 OHM | 5% 0.25W RC-01 | 1206 | R324 |
| 4822 111 90569 | RESISTOR | 2.70 KOHM | 5% 0.25W RC-01 | 1206 | R325 |
| 4822 111 90543 | RESISTOR | 47.00 KOHM | 5% 0.25W RC-01 | 1206 | R326 |
| 4822 111 90248 | RESISTOR | 2.20 KOHM | 5% 0.25W RC-01 | 1206 | R327 |
| 4822 111 90154 | RESISTOR | 270.00 OHM | 5% 0.25W RC-01 | 1206 | R328 |
| 5322 111 90106 | RESISTOR | 330.00 OHM | 5% 0.25W RC-01 | 1206 | R329 |
| 5322 101 14299 | POTENTIOMETER | 1.00 KOHM | 10% 72X | | R330 |
| 4822 111 90543 | RESISTOR | 47.00 KOHM | 5% 0.25W RC-01 | 1206 | R331 |
| 5322 111 90111 | RESISTOR | 4.70 KOHM | 5% 0.25W RC-01 | 1206 | R332 |
| 4822 111 90157 | RESISTOR | 3.30 KOHM | 5% 0.25W RC-01 | 1206 | R333 |
| 4822 111 90214 | RESISTOR | 100.00 KOHM | 5% 0.25W RC-01 | 1206 | R335 |
| 5322 111 90111 | RESISTOR | 4.70 KOHM | 5% 0.25W RC-01 | 1206 | R336 |
| 4822 111 90157 | RESISTOR | 3.30 KOHM | 5% 0.25W RC-01 | 1206 | R337 |
| 5322 111 90111 | RESISTOR | 4.70 KOHM | 5% 0.25W RC-01 | 1206 | R338 |
| 4822 111 90157 | RESISTOR | 3.30 KOHM | 5% 0.25W RC-01 | 1206 | R339 |
| 5322 111 90267 | RESISTOR | 33.00 KOHM | 5% 0.25W RC-01 | 1206 | R340 |
| 5322 111 90111 | RESISTOR | 4.70 KOHM | 5% 0.25W RC-01 | 1206 | R341 |
| 5322 111 90092 | RESISTOR | 1.00 KOHM | 5% 0.25W RC-01 | 1206 | R342 |
| 5322 111 90113 | RESISTOR | 560.00 OHM | 5% 0.25W RC-01 | 1206 | R343 |
| 5322 111 90091 | RESISTOR | 100.00 OHM | 5% 0.25W RC-01 | 1206 | R344 |
| 5322 111 90376 | RESISTOR | 4.70 OHM | 10% 0.25W RC-01 | 1206 | R345 |
| 5322 111 90109 | RESISTOR | 470.00 OHM | 5% 0.25W RC-01 | 1206 | R347 |
| 4822 111 90339 | RESISTOR | 120.00 OHM | 5% 0.25W RC-01 | 1206 | R348 |
| 4822 111 90569 | RESISTOR | 2.70 KOHM | 5% 0.25W RC-01 | 1206 | R349 |
| 4822 111 90569 | RESISTOR | 2.70 KOHM | 5% 0.25W RC-01 | 1206 | R350 |
| 5322 111 90267 | RESISTOR | 33.00 KOHM | 5% 0.25W RC-01 | 1206 | R351 |
| 5322 111 90111 | RESISTOR | 4.70 KOHM | 5% 0.25W RC-01 | 1206 | R352 |
| 4822 111 90249 | RESISTOR | 10.00 KOHM | 5% 0.25W RC-01 | 1206 | R353 |
| 5322 111 90376 | RESISTOR | 4.70 OHM | 10% 0.25W RC-01 | 1206 | R354 |
| 5322 130 42567 | TRANSISTOR | 0.00 | BFQ67 | SOT23 | TS301 |
| 5322 130 42567 | TRANSISTOR | 0.00 | BFQ67 | SOT23 | TS302 |
| 4822 130 60511 | TRANSISTOR | 0.00 | BC847B .1A45V | SOT23 | TS303 |
| 4822 130 60511 | TRANSISTOR | 0.00 | BC847B .1A45V | SOT23 | TS304 |
| 5322 130 60508 | TRANSISTOR | 0.00 | BC857B .1A45V | SOT23 | TS305 |
| 5322 130 60508 | TRANSISTOR | 0.00 | BC857B .1A45V | SOT23 | TS306 |

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